JAN

Access DB# [redacted] 98481

SEARCH REQUEST FORM

Scientific and Technical Informati n Center

Requester's Full Name: FONDA Examiner #: 71970 Date: 3-6-03
Art Unit: 1623 Phone Number 30 8-1620 Serial Number: 09/936746
Mail Box and Bldg/Room Location: 8B19 8A05 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known: Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: see bib sheet attached

Inventors (please provide full names): no assignment has been recorded, but a related case (09/936,788) is assigned to Biotec Pharmacon A

Earliest Priority Filing Date: 3-3-00

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Please search compositions comprising water-soluble β-(1-3) glucan and chitosan. The chitosan concept should include chitin as well because claim 7 says 'carboxylated chitosans'. The water-soluble β-(1-3) glucan is taught for treatment of skin in WO 98/40082 (Henkel). The term "loosened" in claim 3 must be intended to mean "broken". See claims attached.

Jan Delaval
Reference Librarian
Biotechnology & Chemical Library
CM1 1E07 – 703-308-4498
jan.delaval@uspto.gov

Thanks.
K.

****

STAFF USE ONLY

Searcher: JAN
Searcher Phone #: 4498
Searcher Location:
Date Searcher Picked Up: 3/12/03
Date Completed: 5/12/03
Searcher Prep & Review Time:
Clerical Prep Time: 30
Online Time: +70

Type of Search

NA Sequence (#)
AA Sequence (#)
Structure (#) —
Bibliographic ✓
Litigation
Fulltext
Patent Family
Other

Vendors and cost where applicable

STN ✓
Dialog
Questel/Orbit
Dr.Link
Lexis/Nexis
Sequence Systems
WWW/Internet
Other (specify)

PTO-1590 (8-01)

=> fil reg
FILE 'REGISTRY' ENTERED AT 13:51:22 ON 12 MAR 2003

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 11 MAR 2003 HIGHEST RN 497913-82-3
DICTIONARY FILE UPDATES: 11 MAR 2003 HIGHEST RN 497913-82-3

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> d ide can tot l17

L17 ANSWER 1 OF 5 REGISTRY COPYRIGHT 2003 ACS
RN 287935-68-6 REGISTRY
CN **Chitin, polymer with D-glucan (9CI)** (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN **D-Glucan, polymer with chitin (9CI)**
OTHER NAMES:
CN **Chitin-glucan copolymer**
MF (Unspecified . Unspecified)x
CI PMS
PCT Manual component, Manual registration, Polyother, Polyother only
SR CA
LC STN Files: CA, CAPLUS

CM 1

CRN 9012-72-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 1398-61-4
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
2 REFERENCES IN FILE CA (1962 TO DATE)
2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 134:365765

REFERENCE 2: 133:165331

L17 ANSWER 2 OF 5 REGISTRY COPYRIGHT 2003 ACS
RN 263386-65-8 REGISTRY

Jan Delaval
Reference Librarian
Biotechnology & Chemical Library
CM1 1E07 - 703-308-4498
jan.delaval@uspto.gov

CN **Chitinase, mixt. with 1,3-.beta.-glucanase (9CI)** (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN **Glucanase, 1,3-.beta.-, mixt. contg. (9CI)**
MF Unspecified . Unspecified
CI MXS
SR CA
LC STN Files: CA, CAPLUS

CM 1

CRN 9044-93-3
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 9001-06-3
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 132:289943

L17 ANSWER 3 OF 5 REGISTRY COPYRIGHT 2003 ACS
RN 232922-12-2 REGISTRY
CN **Chitin, compd. with D-glucan (9CI)** (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN **D-Glucan, compd. with chitin (9CI)**
MF Unspecified . x Unspecified
SR CA
LC STN Files: CA, CAPLUS

CM 1

CRN 9012-72-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 1398-61-4
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
5 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
5 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 133:278649

REFERENCE 2: 133:19032

REFERENCE 3: 132:241761

REFERENCE 4: 131:297555

REFERENCE 5: 131:117669

L17 ANSWER 4 OF 5 REGISTRY COPYRIGHT 2003 ACS
RN 136305-06-1 REGISTRY
CN **Chitin, mixt. with D-glucan (9CI)** (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN **D-Glucan, mixt. contg. (9CI)**
MF Unspecified . Unspecified
CI MXS
SR CA
LC STN Files: CA, CAPLUS

CM 1

CRN 9012-72-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 1398-61-4
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 129:2530

L17 ANSWER 5 OF 5 REGISTRY COPYRIGHT 2003 ACS
RN 74902-56-0 REGISTRY
CN **Chitosan, compd. with D-glucan (1:1) (9CI)** (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN **D-Glucan, compd. with chitosan (1:1) (9CI)**
MF Unspecified . Unspecified
LC STN Files: CA, CAPLUS, TOXCENTER

CM 1

CRN 9012-76-4
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 9012-72-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
3 REFERENCES IN FILE CA (1962 TO DATE)
3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 125:117923

REFERENCE 2: 107:57380

REFERENCE 3: 93:137329

=> d ide can tot l87

L87 ANSWER 1 OF 8 REGISTRY COPYRIGHT 2003 ACS
RN **306975-95-1** REGISTRY
CN **Chitosan, polymer with 1,6-diisocyanatohexane, (1.fwdarw.3)-.beta.-D-glucan and 1,2,3-propanetriol (9CI)** (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN **.beta.-D-Glucan, (1.fwdarw.3)-, polymer with chitosan, 1,6-diisocyanatohexane and 1,2,3-propanetriol (9CI)**
CN **1,2,3-Propanetriol, polymer with chitosan, 1,6-diisocyanatohexane and (1.fwdarw.3)-.beta.-D-glucan (9CI)**
CN **Hexane, 1,6-diisocyanato-, polymer with chitosan, (1.fwdarw.3)-.beta.-D-glucan and 1,2,3-propanetriol (9CI)**
OTHER NAMES:
CN Glycerol-hexamethylene diisocyanate-Highcareen GS-Hydagen CMFP copolymer
MF (C8 H12 N2 O2 . C3 H8 O3 . Unspecified . Unspecified)x
CI PMS
PCT Manual component, Polyother, Polyurethane, Polyurethane formed
SR CA
LC STN Files: CA, CAPLUS

CM 1

CRN 9051-97-2
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

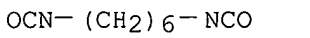
CRN 9012-76-4
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

"Hits" from refs 1 - end L86

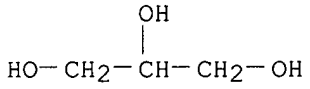
CM 3

CRN 822-06-0
CMF C8 H12 N2 O2



CM 4

CRN 56-81-5
CMF C3 H8 O3



1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 133:363926

L87 ANSWER 2 OF 8 REGISTRY COPYRIGHT 2003 ACS
RN **263386-66-9** REGISTRY
CN **Chitinase, mixt. with endo-1,3-.beta.-glucanase zymolyase (9CI)** (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN **Glucanase, endo-1,3-.beta.-, zymolyase, mixt. contg. (9CI)**
MF Unspecified . Unspecified
CI MXS
SR CA
LC STN Files: CA, CAPLUS

CM 1

CRN 9025-37-0
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 9001-06-3
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 132:289943

L87 ANSWER 3 OF 8 REGISTRY COPYRIGHT 2003 ACS
RN **52519-63-8** REGISTRY
CN **Chitin, carboxymethyl ether (9CI)** (CA INDEX NAME)
OTHER NAMES:
CN **Carboxymethylchitin**
CN **N-Acetyl-O-carboxymethylchitosan**
CN **O-Carboxymethylchitin**
DR 196412-80-3, 199943-94-7
MF C2 H4 O3 . x Unspecified
CI COM
LC STN Files: AGRICOLA, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CHEMCATS, CSCHEM, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, TOXCENTER, USPAT2, USPATFULL

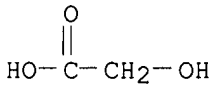
CM 1

CRN 1398-61-4
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 79-14-1
CMF C2 H4 O3



296 REFERENCES IN FILE CA (1962 TO DATE)
50 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
297 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 138:91686

REFERENCE 2: 138:75020

REFERENCE 3: 138:8403

REFERENCE 4: 137:358206

REFERENCE 5: 137:348838

REFERENCE 6: 137:341893

REFERENCE 7: 137:329276

REFERENCE 8: 137:299554

REFERENCE 9: 137:267647

REFERENCE 10: 137:222112

L87 ANSWER 4 OF 8 REGISTRY COPYRIGHT 2003 ACS
RN **37228-69-6** REGISTRY
CN Glucanase, 1,6-.beta.- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN .beta.-1,6-Glucanase
CN 1,6-.beta.-Glucanase
MF Unspecified
CI MAN
LC STN Files: AGRICOLA, BIOBUSINESS, BIOSIS, CA, CAPLUS, CHEMLIST, IFICDB, IFIPAT, IFIUDB, PROMT, TOXCENTER, USPATFULL
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
81 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
81 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 138:150076

REFERENCE 2: 137:381997

REFERENCE 3: 137:291314

REFERENCE 4: 137:258275

REFERENCE 5: 137:180468

REFERENCE 6: 137:165312

REFERENCE 7: 136:382660

REFERENCE 8: 136:81738

REFERENCE 9: 135:88550

REFERENCE 10: 134:363345

L87 ANSWER 5 OF 8 REGISTRY COPYRIGHT 2003 ACS
RN **9051-97-2** REGISTRY
CN **.beta.-D-Glucan, (1.fwdarw.3)- (9CI)** (CA INDEX NAME)
OTHER NAMES:
CN (1,3)-.beta.-Glucan
CN (1.fwdarw.3)-.beta.-D-Glucan
CN Adjuvax
CN Drieline
CN GL 32
CN Glucan F
CN Guardoran
CN Highcareen GS
CN ImmuStim
CN Poly(1.fwdarw.3)-.beta.-D-glucan
CN Polysaccharide 13140
CN SSG
CN TAK
CN TAK (polysaccharide)
CN TAK-N
CN Uniglucan 51
CN VitaStim
DR 9050-90-2, 9052-00-0, 130809-04-0, 31667-87-5, 199665-06-0
MF Unspecified
CI PMS, COM, MAN
PCT Manual registration
LC STN Files: ADISINSIGHT, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CHEMCATS, CIN, DDFU, DRUGNL, DRUGU, DRUGUPDATES, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, NIOSHTIC, PHAR, PROMT, RTECS*, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
1153 REFERENCES IN FILE CA (1962 TO DATE)
127 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1157 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 138:152011

REFERENCE 2: 138:150016

REFERENCE 3: 138:137472

REFERENCE 4: 138:133473

REFERENCE 5: 138:132718

REFERENCE 6: 138:103734

REFERENCE 7: 138:103330

REFERENCE 8: 138:88721

REFERENCE 9: 138:77321

REFERENCE 10: 138:69750

L87 ANSWER 6 OF 8 REGISTRY COPYRIGHT 2003 ACS
RN **9012-76-4** REGISTRY
CN **Chitosan (8CI, 9CI)** (CA INDEX NAME)

OTHER NAMES:
CN 100D-VL
CN BC 10
CN BC 10 (polysaccharide)
CN Biopolymer L 112
CN Chicol
CN Chitan, N-acetyl-
CN **Chitin, N-deacetyl-**
CN Chitofos
CN Chitopearl 3510
CN Chitopearl BC 3000
CN Chitopearl BCW 2500
CN Chitopearl BCW 3000
CN Chitopearl BCW 3500
CN Chitopearl BCW 3505
CN Chitopearl BCW 3507
CN **Chitosan 500**
CN **Chitosan CLH**
CN **Chitosan EL**
CN **Chitosan F**
CN **Chitosan FL**
CN **Chitosan H**
CN **Chitosan LL**
CN **Chitosan LL 80**
CN **Chitosan LLWP**
CN **Chitosan M**
CN **Chitosan MP**
CN **Chitosan PSH**
CN **Chitosan SK 10**
CN **Chitosan VL**
CN Chitosom
CN Crystan LA-S
CN CTA 1 Lactic Acid
CN CTA 4
CN DAC 50
CN DAC 70
CN **Daichitosan DVL**
CN **Daichitosan P-VL**
CN **Daichitosan VL**
CN **Daichitosan W 10**
CN **Deacetylchitin**
CN FCM 117
CN Flonac C
CN Flonac LV
CN Flonac N
CN HC 1
CN HC 1 (polysaccharide)
CN Hiset KW 5
CN Hydagan DCMF
CN Hydagen CMFP
CN Hydagen HCMF
CN **K 5 (chitosan)**
CN **Kimitsu Chitosan F**
CN **Kimitsu Chitosan F 2**
CN **Kimitsu Chitosan F 2P**
CN **Kimitsu Chitosan H**
CN **Kimitsu Chitosan L**
CN **Kimitsu Chitosan LL**
CN **Kimitsu Chitosan LLW**
CN **Kimitsu Chitosan M**
CN **Kimitsu Chitosan MP**
CN **Koyo Chitosan DAC 50**
CN **Koyo Chitosan FM 80**

CN **Koyo Chitosan SK 30**
CN **North Chitosan MA 1**
CN **North Chitosan MC 1**
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for DISPLAY
DR 57285-05-9
MF Unspecified
CI PMS, COM, MAN
PCT Manual registration, Polyother, Polyother only
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DIOGENES, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, NAPRALERT, PHAR, PIRA, PROMT, RTECS*, TOXCENTER, TULSA, USAN, USPAT2, USPATFULL, VTB
(*File contains numerically searchable property data)
Other Sources: NDSL**, TSCA**, WHO
(**Enter CHEMLIST File for up-to-date regulatory information)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
11005 REFERENCES IN FILE CA (1962 TO DATE)
2039 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
11054 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 138:159348

REFERENCE 2: 138:158905

REFERENCE 3: 138:158884

REFERENCE 4: 138:158877

REFERENCE 5: 138:158863

REFERENCE 6: 138:158860

REFERENCE 7: 138:158859

REFERENCE 8: 138:158824

REFERENCE 9: 138:158821

REFERENCE 10: 138:158772

L87 ANSWER 7 OF 8 REGISTRY COPYRIGHT 2003 ACS
RN **9001-06-3** REGISTRY
CN **Chitinase (9CI)** (CA INDEX NAME)
OTHER NAMES:
CN .beta.-1,4-Poly-N-acetyl glucosamidinase
CN Chitodextrinase
CN Chitotriosidase
CN E.C. 3.2.1.14
CN Endochitinase
CN K 312C
CN Methylumbelliferyl tetra-N-acetyl-.beta.-D-chitotetraoside hydrolase
CN Methylumbelliferyl tetraacetylchitotetraoside hydrolase
CN Nod factor hydrolase
CN Nodulation factor hydrolase
CN Poly-.beta.-glucosaminidase
CN **Remazol Brilliant Violet carboxymethyl chitin hydrolase**
DR 176591-25-6
MF Unspecified
CI COM, MAN
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO,

CA, CABA, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMLIST, CIN, CSCHEM, EMBASE, IFICDB, IFIPAT, IFIUDB, MEDLINE, PIRA, PROMT, RTECS*, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
3341 REFERENCES IN FILE CA (1962 TO DATE)
45 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
3355 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 138:151022

REFERENCE 2: 138:150124

REFERENCE 3: 138:149409

REFERENCE 4: 138:147715

REFERENCE 5: 138:142310

REFERENCE 6: 138:135957

REFERENCE 7: 138:133584

REFERENCE 8: 138:132594

REFERENCE 9: 138:132215

REFERENCE 10: 138:132149

L87 ANSWER 8 OF 8 REGISTRY COPYRIGHT 2003 ACS
RN **1398-61-4** REGISTRY
CN **Chitin (8CI, 9CI)** (CA INDEX NAME)
OTHER NAMES:
CN Chitan, N-acetyl-
CN **Chitin Tc-L**
CN Clandosan
CN **Kimitsu Chitin**
CN Regitex FA
DR 9043-70-3, 191802-95-6
MF Unspecified
CI COM, MAN
LC STN Files: AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, NAPRALERT, PROMT, RTECS*, TOXCENTER, USPAT2, USPATFULL, VETU, VTB
(*File contains numerically searchable property data)
Other Sources: EINECS**, NDSL**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
6394 REFERENCES IN FILE CA (1962 TO DATE)
824 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
6414 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 138:160831

REFERENCE 2: 138:158669

REFERENCE 3: 138:152437

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REFERENCE   4:  138:150124

REFERENCE   5:  138:149974

REFERENCE   6:  138:149409

REFERENCE   7:  138:142555

REFERENCE   8:  138:142341

REFERENCE   9:  138:142295

REFERENCE  10:  138:139073


=> d his


     (FILE 'HOME' ENTERED AT 13:19:05 ON 12 MAR 2003)
                SET COST OFF

     FILE 'REGISTRY' ENTERED AT 13:19:17 ON 12 MAR 2003
L1             2 S (CHITIN OR CHITOSAN)/CN
                 SEL RN
L2          1022 S E1-E2/CRN
L3          3306 S CHITIN OR CHITOSAN
L4          2282 S L3 NOT L1,L2
L5           725 S L4 NOT (CHITINASE OR SQL/FA)
L6           260 S L5 AND NC>=2
L7           465 S L5 NOT L6
                 E .BETA.-(1-3)-GLUCAN/CN
L8             1 S E8
                 E .BETA.-D-GLUCAN, (1.FWDARW.3)-/CN
L9             2 S E3
L10            1 S L9 NOT 9008-22-4
L11            1 S L9 NOT L10
                 SEL RN
L12            9 S E1/CRN
                 SEL RN L10
L13           46 S E2/CRN
L14            1 S L13 AND L2-L7
L15           12 S L2-L7 AND GLUCAN
L16            9 S L15 AND GLUCAN/INS.HP
L17            5 S L16 NOT (ZYMOLYASE OR SCLEROGLUCAN OR PROPANETRIOL OR POTASSI

     FILE 'HCAOLD' ENTERED AT 13:26:25 ON 12 MAR 2003
L18            0 S L17

     FILE 'HCAPLUS' ENTERED AT 13:26:29 ON 12 MAR 2003
L19           12 S L17

     FILE 'USPATFULL, USPAT2' ENTERED AT 13:27:08 ON 12 MAR 2003
L20            0 S L17

     FILE 'HCAPLUS' ENTERED AT 13:27:22 ON 12 MAR 2003
L21        15329 S L1
L22        22387 S CHITIN OR CHITOSAN
L23        22550 S L21,L22
L24         1163 S L10
L25          686 S 1(1W)3 BETA D GLUCAN
L26         1069 S BETA D GLUCAN (L) 1(1W)3
L27         1050 S BETA 1 3 GLUCAN
L28          294 S 1 3 BETA GLUCAN
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L29         2714 S L24-L28
L30          217 S L23 AND L29
                 E GRIESBACH Ù/AU
L31           26 S E3,E5
                 E WACHTER R/AU
L32          142 S E3-E5,E15
                 E ANSMANN A/AU
L33          158 S E3-E6
                 E FABRY B/AU
L34          243 S E3,E7
                 E EISFELD W/AU
L35           34 S E3,E4
                 E ENGSTAD R/AU
L36           20 S E3-E6
L37            5 S L30 AND L31-L36
                 E WO2000-EP1837/AP,PRN
L38            1 S E3,E4
                 E DE99-19911056/AP,PRN
L39            1 S E3,E4
L40            5 S L38,L39,L37
                 E COGNIS/PA,CS
L41          804 S E3,E4
                 E BIOTEC/PA,CS
L42          213 S E3,E4
L43         1009 S (COGNIS OR BIOTEC)/PA,CS
L44            5 S L41-L43 AND L30
L45            5 S L40,L44
L46         1204 S BETA 1(1W)3 GLUCAN
L47          136 S L23 AND L46
L48          223 S L30,L47
L49            5 S L48 AND L31-L45
                 SEL RN

     FILE 'REGISTRY' ENTERED AT 13:35:52 ON 12 MAR 2003
L50            8 S E1-E8
L51            3 S L50 AND L1-L17
L52            1 S L51 AND 4/NC

     FILE 'HCAPLUS' ENTERED AT 13:36:38 ON 12 MAR 2003
L53            1 S L52
L54           17 S L19,L49,L53

     FILE 'REGISTRY' ENTERED AT 13:37:58 ON 12 MAR 2003
L55            1 S 37228-69-6

     FILE 'HCAPLUS' ENTERED AT 13:38:27 ON 12 MAR 2003
L56           81 S L55
L57          294 S BETA(S)1(1W)6(S)GLUCANASE
L58            7 S L48 AND L56,L57
                 SEL DN AN 3 4
L59            2 S E9-E14
L60           17 S L54,L59 AND L19,L21-L49,L53,L54,L56-L59
L61           17 S L60 AND (?CHITIN? OR ?CHITOSAN? OR ?GLUCAN?)
                 SEL RN

     FILE 'REGISTRY' ENTERED AT 13:42:17 ON 12 MAR 2003
L62           33 S E15-E47
L63           15 S L62 AND L1-L17,L55
L64           13 S L63 NOT SQL/FA
L65           12 S L64 NOT ZYMOL?
L66           18 S L62 NOT L63

     FILE 'HCAPLUS' ENTERED AT 13:45:11 ON 12 MAR 2003
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L67          17 S L64 AND L61
L68           7 S L30 AND COSMETIC#/SC,SX,CW
L69           5 S L30 AND COSMETIC#/BI
L70           7 S L68,L69
L71           0 S L30 AND COS/RL
                E COSMETICS/CT
L72           4 S E3-E61 AND L30
                E E3+ALL
L73       56276 S E2,E1+NT
L74       44674 S E31+NT OR E25+NT OR E26 OR E27+NT OR E28+NT OR E29+NT
                E E30+ALL
L75        6768 S E3+NT
L76       79770 S E14+NT
                E E15+ALL
L77       50709 S E3+NT
                E E145+ALL
                E E16+ALL
L78        2359 S E3+NT
L79        9165 S E7+NT OR E8+NT
L80           9 S L30 AND L73-L79
L81          21 S L30 AND (PHARMACEUT? OR PHARMACOL?)/SC,SX,CW
L82          13 S L30 AND THU/RL
L83          42 S L67-L70,L72,L80-L82
L84          32 S L83 AND (PD<=20000303 OR PRD<=20000303 OR AD<=20000303)
L85          10 S L83 NOT L84
L86          32 S L19,L84

     FILE 'REGISTRY' ENTERED AT 13:51:22 ON 12 MAR 2003
L87           8 S L64 NOT L17

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FILE LAST UPDATED: 11 Mar 2003  (20030311/ED)

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> d l86 all hitstr tot

L86  ANSWER 1 OF 32  HCAPLUS  COPYRIGHT 2003 ACS
AN   2003:71815  HCAPLUS
DN   138:102368
TI   Combinations of a fungal cell wall-degrading enzyme a
     membrane-affecting compound
IN   Harman, Gary E.; Lorito, Matteo; Di Pietro, Antonio;
     K.; Scala, Felice; Kubicek, Christian P.
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There are some "false" hits on text search

Covers cosmetic / use as cosmetic / pharmaceutical

PA Cornell Research Foundation, Inc., USA
SO U.S., 43 pp., Cont.-in-part of U.S. Ser. No. 499,164, abandoned.
CODEN: USXXAM
DT Patent
LA English
IC A01H005-00; G12N015-82
NCL 800301000; 514012000; 800279000
CC 5-2 (Agrochemical Bioregulators)
Section cross-reference(s): **1, 63**

FAN.CNT 11

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6512166	B1	20030128	US 1996-611504	19960305 <--
	US 5173419	A	19921222	US 1991-716134	19910617 <--
	US 6251390	B1	20010626	US 1992-919784	19920727 <--
	US 5326561	A	19940705	US 1992-990609	19921215 <--
	US 5378821	A	19950103	US 1993-45269	19930414 <--
	US 5433947	A	19950718	US 1994-249927	19940526 <--
	US 6020540	A	20000201	US 1994-371680	19941221 <--
	WO 9732973	A1	19970912	WO 1997-US3344	19970305 <--
	W: AU, CA, JP				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9720655	A1	19970922	AU 1997-20655	19970305 <--
	EP 886677	A1	19981230	EP 1997-908847	19970305 <--
	R: DE, FR, IT, NL				
	JP 2000507222	T2	20000613	JP 1997-531884	19970305 <--

PRAI	US 1991-716134	A2	19910617	<--
	US 1992-919784	A2	19920727	<--
	US 1992-990609	A1	19921215	<--
	US 1993-45269	A2	19930414	<--
	US 1994-249927	A1	19940526	<--
	US 1994-371680	A2	19941221	<--
	US 1995-499164	B2	19950707	<--
	US 1995-7567P	P	19951127	<--
	US 1993-49390	A2	19930421	<--
	US 1994-184115	B2	19940121	<--
	US 1996-611504	A	19960305	<--
	WO 1997-US3344	W	19970305	<--

AB A system for inhibiting the germination or growth of a fungus comprises (a) fungal cell wall degrading chitinolytic or glucanolytic enzyme and (b) an antifungal cell membrane-affecting compd. Exemplified antifungal fungal cell membrane-affecting compds. include flusilazole, miconazole, osmotin, gramicidin, valinomycin, phospholipase B, and trichorzianines. The components (a) and (b) may be supplemented with polyene macrolide antibiotics, antifungal epithiodiketopiperazine antibiotics (e.g., gliotoxin), fungal cell wall biosynthesis inhibitors (e.g., L-sorbose) and/or a detergent. Embodiments include a method of contacting a plant which expresses a cell wall-degrading enzyme with an antifungal fungal cell membrane-affecting compd. Enzymes include Trichoderma endochitinase and Trichoderma .beta.-N-acetylglucosaminidase.

ST fungicide cell wall degrading enzyme endochitinase acetylglucosaminidase

IT Trichoderma harzianum
(endochitinase and .beta.-N-acetylglucosaminidase of; fungicidal combinations of a fungal cell wall-degrading enzyme and a fungal cell membrane-affecting compd.)

IT Trichoderma virens
(endochitinase of; fungicidal combinations of a fungal cell wall-degrading enzyme and a fungal cell membrane-affecting compd.)

IT Cell wall
(fungal; fungicidal combinations of a fungal cell wall-degrading enzyme and a fungal cell membrane-affecting compd.)

IT Botrytis cinerea
Cell membrane

Fungicides
Fusarium oxysporum
Genetic engineering
Transformation, genetic
(fungicidal combinations of a fungal cell wall-degrading enzyme and a fungal cell membrane-affecting compd.)

IT Antibiotics
(macrolide; fungicidal combinations of a fungal cell wall-degrading enzyme and a fungal cell membrane-affecting compd.)

IT Proteins
RL: AGR (Agricultural use); PAC (Pharmacological activity); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(osmotins; fungicidal combinations of a fungal cell wall-degrading enzyme and a fungal cell membrane-affecting compd.)

IT Proteins
RL: AGR (Agricultural use); PAC (Pharmacological activity); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(peptaibols; fungicidal combinations of a fungal cell wall-degrading enzyme and a fungal cell membrane-affecting compd.)

IT Transgene
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(plants expressing; fungicidal combinations of a fungal cell wall-degrading enzyme and a fungal cell membrane-affecting compd.)

IT Phytopathogenic fungi
(resistance to; fungicidal combinations of a fungal cell wall-degrading enzyme and a fungal cell membrane-affecting compd.)

IT Sterols
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(synthesis inhibitors; fungicidal combinations of a fungal cell wall-degrading enzyme and a fungal cell membrane-affecting compd.)

IT Embryophyta
(transgenic; fungicidal combinations of a fungal cell wall-degrading enzyme and a fungal cell membrane-affecting compd.)

IT 9030-18-6, **Chitin** synthetase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(epithiodiketopiperazine inhibitors of; fungicidal combinations of a fungal cell wall-degrading enzyme and a fungal cell membrane-affecting compd.)

IT 1405-97-6, Gramicidin 2001-95-8, Valinomycin 85509-19-9, Flusilazole 130590-19-1, Zeamatin
RL: AGR (Agricultural use); PAC (Pharmacological activity); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(fungicidal combinations of a fungal cell wall-degrading enzyme and a fungal cell membrane-affecting compd.)

IT 9037-30-3, **.beta.-1,3-Glucan** synthetase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibitors; fungicidal combinations of a fungal cell wall-degrading enzyme and a fungal cell membrane-affecting compd.)

IT 9001-06-3, Endochitinase 9012-33-3, .beta.-N-Acetylglucosaminidase
RL: AGR (Agricultural use); PAC (Pharmacological activity); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(of Trichoderma harzianum; fungicidal combinations of a fungal cell wall-degrading enzyme and a fungal cell membrane-affecting compd.)

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L86 ANSWER 2 OF 32 HCAPLUS COPYRIGHT 2003 ACS
AN 2001:224534 HCAPLUS
DN 134:365765
TI Synthesis of esters of the **chitin-glucan** complex
AU Gamayurova, V. S.; Kotlyar, M. N.; Shabrukova, N. V.; Khalitov, F. G.
CS Kafedra Promyshlennoi Biotekhnol., Kazan. Gos. Tekhnol. Univ., Kazan, Russia
SO Voprosy Biologicheskoi, Meditsinskoi i Farmatsevticheskoi Khimii (**1999**), (3), 38-40
CODEN: VBMFBA
PB Izdatel'stvo Meditsina
DT Journal
LA Russian
CC 16-4 (Fermentation and Bioindustrial Chemistry)
AB The natural biopolymers **chitin** and **chitosan** derived from the shell of crustaceans and their derivs. are presently widely used in many areas, including in medicine and pharmaceutical industry. The **chitin** of mycelial fungi is not applied so far though there are some data on its high adsorbing capacity, wound-healing properties, etc. This paper presents the results of chem. modification of the **chitin-glucan** complex isolated from the biomass of the fungi Aspergillus niger to obtain its sol. derivs. The interaction of the hydroxyl groups of the **chitin-glucan** complex with haloid alkyls, di-Me sulfate, and acetic anhydride gave rise to resp. esters identified by the data of infra red spectroscopy and ultimate anal. Examg. these compds. demonstrated that derivs. with degree 2 substitution were obtained in all cases, except their interaction with benzyl chloride, which in turn caused changes in the soly. of these compds. as compared with the initial **chitin-glucan** complex. The use of a wet **chitin-glucan** complex unexposed to desiccation after its isolation was also shown to promote a reaction to run easily.
ST **chitin glucan** complex ester synthesis
IT Aspergillus niger
(synthesis of esters of **chitin-glucan** complex)
IT **287935-68-6, Chitin-glucan** copolymer
RL: MSC (Miscellaneous)
(synthesis of esters of **chitin-glucan** complex)
IT **287935-68-6, Chitin-glucan** copolymer
RL: MSC (Miscellaneous)
(synthesis of esters of **chitin-glucan** complex)
RN 287935-68-6 HCAPLUS
CN Chitin, polymer with D-glucan (9CI) (CA INDEX NAME)

CM 1

CRN 9012-72-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 1398-61-4
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L86 ANSWER 3 OF 32 HCAPLUS COPYRIGHT 2003 ACS
AN 2001:103436 HCAPLUS
DN 134:292432
TI (**1**.fwdarw.**3**,1.fwdarw.6)-.**beta**.-D-**Glucans** of yeasts and fungi and their biological activity
AU Kogan, G.
CS Institute of Chemistry, Slovak Academy of Sciences, Bratislava, 842 38, Slovakia
SO Studies in Natural Products Chemistry (**2000**), 23(Bioactive Natural Products (Part D)), 107-152
CODEN: SNPCE2
PB Elsevier Science B.V.
DT Journal; General Review
LA English
CC 10-0 (Microbial, Algal, and Fungal Biochemistry)
Section cross-reference(s): **1**, 8
AB A review with 244 refs. Glucans, or polymers of D-glucose linked by (1.fwdarw.3)-.beta. and (1.fwdarw.6)-.beta. glycosidic linkages are the common polysaccharides of the fungal cell wall. They are usually located in the inner part of the wall and play the role of skeletal polysaccharide contributing to the shape and rigidity of the cell wall. The .beta.-glucan mols. are interlinked by the hydrogen bonds and sometimes occur in a complex with other polysaccharides, such as **chitin**. .beta.-Glucans isolated from the various yeast and fungal species may have different mol. wt. or other structural parameters such as degree of branching or the length of the sidechains which may affect their soly. in water. Many fungal .beta.-glucans possess remarkable ability to enhance the immune system, i.e. act as immunomodulators. Numerous studies have demonstrated the activity of .beta.-glucans as biol. response modifiers that are able to exert beneficial effect in host by demonstrating antitumor, antibacterial, antiviral and antiparasitic activities. Some studies have attempted to correlate biol. activity of individual .beta.-glucans to their spatial structure or helical conformation. However neither such correlation nor the precise mechanism of the activation of the immune system by .beta.-glucans have been unambiguously proven. The present article reviews the existing knowledge on the immunol. activity of the fungal .beta.-glucans and provides some recent results on the radioprotective and antimutagenic activity of the .beta.-glucan isolated from the baker's yeast.
ST review glucan yeast fungi bioactivity
IT Radioprotectants
(glucans of yeasts and fungi and their biol. activities)
IT Bakers' yeast
Cell wall
Fungi
Immunomodulators
Mutation inhibitors
Yeast
(glucans of yeasts and fungi and their biol. activity)
IT Structure-activity relationship
(of glucans)
IT 113835-01-1
RL: BAC (Biological activity or effector, except adverse); BOC (Biological

occurrence); BSU (Biological study, unclassified); PRP (Properties); **THU (Therapeutic use)**; BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(glucans of yeasts and fungi and their biol. activity)

RE.CNT 244 THERE ARE 244 CITED REFERENCES AVAILABLE FOR THIS RECORD

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L86 ANSWER 4 OF 32 HCAPLUS COPYRIGHT 2003 ACS
AN 2000:814525 HCAPLUS
DN 133:363926
TI Collagen-free compositions for **cosmetics**
IN **Wachter, Rolf**; **Griesbach, Ute**; Horlacher, Peter
PA **Cognis** Deutschland G.m.b.H., Germany
SO PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DT Patent
LA German
IC ICM C08B037-00
ICS C08L005-08; A61K007-48
CC 44-5 (Industrial Carbohydrates)
Section cross-reference(s): **62**

bad date

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000068273	A1	20001116	WO 2000-EP3762	20000426 <--
	W: AU, CA, CN, JP, KR, NZ, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	DE 19920557	A1	20001116	DE 1999-19920557	19990505 <--
	EP 1173488	A1	20020123	EP 2000-927067	20000426 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2002544140	T2	20021224	JP 2000-616245	20000426 <--
PRAI	DE 1999-19920557	A	19990505 <--		
	WO 2000-EP3762	W	20000426		

OS MARPAT 133:363926
AB The invention relates to collagen-free **cosmetic** prepns. which can be obtained by crosslinking and subsequently dewatering swollen aq. suspensions of **chitosans** and **.beta.-1, 3-glucans** with diisocyanates and/or dialdehydes. In examples, compns. of **chitosan** (Hydagen CMFP), Highcareen GS, and glycerol were crosslinked with hexamethylene diisocyanate to give a spongy material after freeze drying.
ST **chitosan** isocyanate **glucan** glycerol polymer **cosmetic**
IT **Cosmetics**
(**chitosan**-based collagen-free compns. for)
IT Drying
(dewatering; of **chitosan**-based collagen-free compns. for **cosmetics**)
IT Freeze drying
(of **chitosan**-based collagen-free compns. for **cosmetics**)
IT **306975-95-1P**, Glycerol-hexamethylene diisocyanate-Highcareen GS-Hydagen CMFP copolymer
RL: BSU (Biological study, unclassified); IMF (Industrial manufacture);

BIOL (Biological study); PREP (Preparation)
(in collagen-free compns. for **cosmetics**)
RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Anon; PATENT ABSTRACTS OF JAPAN 1989, V013(262), PC-608
(2) Anon; PATENT ABSTRACTS OF JAPAN 1993, V017(067), PC-1025
(3) Anon; PATENT ABSTRACTS OF JAPAN 1994, V018(282), PC-1205
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(7) Momoki, N; JP 06048917 A 1994
(8) Nitta Gelatin Inc; JP 04275207 A 1992 HCAPLUS
(9) Smith, T; US 5322935 A 1994 HCAPLUS
IT **306975-95-1P**, Glycerol-hexamethylene diisocyanate-Highcareen GS-Hydagen CMFP copolymer
RL: BSU (Biological study, unclassified); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation)
(in collagen-free compns. for **cosmetics**)
RN 306975-95-1 HCAPLUS
CN Chitosan, polymer with 1,6-diisocyanatohexane, (1.fwdarw.3)-.beta.-D-glucan and 1,2,3-propanetriol (9CI) (CA INDEX NAME)

CM 1

CRN 9051-97-2
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

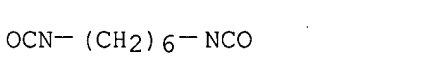
CM 2

CRN 9012-76-4
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

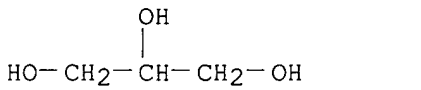
CM 3

CRN 822-06-0
CMF C8 H12 N2 O2



CM 4

CRN 56-81-5
CMF C3 H8 O3



L86 ANSWER 5 OF 32 HCAPLUS COPYRIGHT 2003 ACS
AN **2000:756500** HCAPLUS
DN **133:325512**

TI Deodorizing preparations containing .beta.-(1, 3)-glucans for enhancement of the esterase inhibitory effect

IN Wachter, Rolf; Griesbach, Ute; Fabry, Bernd; Engstad, Rolf E.

PA Cognis Deutschland G.m.b.H., Germany; Biotec Asa

SO PCT Int. Appl., 22 pp.
CODEN: PIXXD2

DT Patent

LA German

IC ICM A61K007-38
ICS A61K007-32

CC 62-5 (Essential Oils and Cosmetics)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000062752	A1	20001026	WO 2000-EP3192	20000411 <--
	W: AU, CA, CN, JP, KR, NZ, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	DE 19917743	A1	20001026	DE 1999-19917743	19990420 <--
	EP 1171087	A1	20020116	EP 2000-926860	20000411 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2002542180	T2	20021210	JP 2000-611889	20000411 <--
	US 6497863	B1	20021224	US 2002-958057	20020208 <--
PRAI	DE 1999-19917743	A	19990420 <--		
	WO 2000-EP3192	W	20000411		

AB The invention relates to novel deodorizing prepns. that have an effect that is enhanced by synergy and that contain (a) water-sol. .beta.-(1,3)-glucans that are substantially free from .beta.-(1,6) links, (b) aluminum chlorohydrate, (c) esterase inhibitors and/or (d) bactericidal or bacteriostatic active substances. Glucans obtained from Saccharomyces are treated with Trichoderma harzianum .beta.-(1,6)-glucanase to cleave .beta.-(1,6) bonds. Esterase inhibitors are trialkyl citrates, e.g. tri-Et citrate; bactericidal agents are chitosans. Compns. contain in wt./wt.%: .beta.-(1,3)-glucans 0.01-50; aluminum chlorohydrate 1.0-50; esterase inhibitors 0.01-20; antibacterial agents 0.01-5.0.

ST deodorant betaglucan trialkyl citrate esterase inhibition

IT Antibacterial agents
Deodorants
(deodorizing prepns. contg. .beta.-(1,3)-glucans for enhancement of esterase inhibitory effect)

IT Trichoderma harzianum
(source of Glucanase, 1,6-.beta.-; deodorizing prepns. contg. .beta.-(1,3)-glucans for enhancement of esterase inhibitory effect)

IT Saccharomyces
(source of glucans; deodorizing prepns. contg. .beta.-(1,3)-glucans for enhancement of esterase inhibitory effect)

IT 9016-18-6, Carboxylesterase
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(deodorizing prepns. contg. .beta.-(1,3)-glucans for enhancement of esterase inhibitory effect)

IT 9051-97-2DP, Highcareen GS, derivs.
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation)
(deodorizing prepns. contg. .beta.-(1,3)-glucans for enhancement of esterase inhibitory effect)

IT 77-93-0, Triethyl citrate 1327-41-9, Aluminum chlorohydrate
9012-76-4, Chitosan
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(deodorizing prepns. contg. **.beta.-(1,3)-glucans** for enhancement of esterase inhibitory effect)
IT **37228-69-6, Glucanase, 1,6-.beta.-**
RL: BSU (Biological study, unclassified); CAT (Catalyst use); BIOL (Biological study); USES (Uses)
(deodorizing prepns. contg. **.beta.-(1,3)-glucans** for enhancement of esterase inhibitory effect)
RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Halleck, F; US 3659025 A 1972 HCAPLUS
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(8) Towle, G; US 4012333 A 1977 HCAPLUS
IT **9051-97-2DP**, Highcareen GS, derivs.
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation)
(deodorizing prepns. contg. **.beta.-(1,3)-glucans** for enhancement of esterase inhibitory effect)
RN 9051-97-2 HCAPLUS
CN .beta.-D-Glucan, (1.fwdarw.3)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT **9012-76-4, Chitosan**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(deodorizing prepns. contg. **.beta.-(1,3)-glucans** for enhancement of esterase inhibitory effect)
RN 9012-76-4 HCAPLUS
CN Chitosan (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT **37228-69-6, Glucanase, 1,6-.beta.-**
RL: BSU (Biological study, unclassified); CAT (Catalyst use); BIOL (Biological study); USES (Uses)
(deodorizing prepns. contg. **.beta.-(1,3)-glucans** for enhancement of esterase inhibitory effect)
RN 37228-69-6 HCAPLUS
CN Glucanase, 1,6-.beta.- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L86 ANSWER 6 OF 32 HCAPLUS COPYRIGHT 2003 ACS
AN 2000:700069 HCAPLUS
DN 133:278649
TI The influence of the conditions of processing of the mycelial fungus Aspergillus niger on the supramolecular structure and adsorption characteristics of the isolated **chitin-glucan** complex
AU Kanarskaya, Z. A.; Gamayurova, V. S.; Sha-Brukova, N. V.; Gogelashvili, G. Sh.; Grunin, Yu. B.; Kanarsky, A. V.; Izbranova, S. I.
CS State Kazan Technological University, Kazan, Russia
SO Biotekhnologiya (**2000**), (3), 63-66
CODEN: BTKNEZ; ISSN: 0234-2758
PB Biotekhnologicheskaya Akademiya RF
DT Journal
LA Russian

CC 10-6 (Microbial, Algal, and Fungal Biochemistry)
AB This report describes the effect of processing Aspergillus niger biomass on the supramol. structure and adsorption characteristics of **chitin-glucan** complex.
ST Aspergillus biomass **chitin glucan** complex supramol structure
IT Aspergillus niger
Supramolecular structure
(influence of conditions of processing of mycelial fungus Aspergillus niger on supramol. structure and adsorption characteristics of isolated **chitin-glucan** complex)
IT **232922-12-2**
RL: PRP (Properties)
(influence of conditions of processing of mycelial fungus Aspergillus niger on supramol. structure and adsorption characteristics of isolated **chitin-glucan** complex)
IT **232922-12-2**
RL: PRP (Properties)
(influence of conditions of processing of mycelial fungus Aspergillus niger on supramol. structure and adsorption characteristics of isolated **chitin-glucan** complex)
RN 232922-12-2 HCAPLUS
CN Chitin, compd. with D-glucan (9CI) (CA INDEX NAME)

CM 1

CRN 9012-72-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 1398-61-4
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L86 ANSWER 7 OF 32 HCAPLUS COPYRIGHT 2003 ACS
AN 2000:670405 HCAPLUS
DN 133:330858
TI D-Cecropin B: proteolytic resistance, lethality for pathogenic fungi and binding properties
AU De Lucca, A. J.; Bland, J. M.; Vigo, C. B.; Jacks, T. J.; Peter, J.; Walsh, T. J.
CS Southern Regional Research Center, USDA, ARS, New Orleans, LA, 70124, USA
SO Medical Mycology (**2000**), 38(4), 301-308
CODEN: MEMYFR; ISSN: 1369-3786
PB BIOS Scientific Publishers Ltd.
DT Journal
LA English
CC 5-2 (Agrochemical Bioregulators)
Section cross-reference(s): 1, 34
AB L-Cecropin B (LCB) is a potent fungicidal peptide that is subject to proteolytic degrdn. by extracellular enzymes produced by Aspergillus flavus. We hypothesized that D-cecropin B (DCB), contg. all D-amino acids, should resist proteolysis while retaining its fungicidal and target specificities. DCB was synthesized by solid phase methods using Fmoc chem. In vitro, at pH 6.0, DCB was lethal against the germinating conidia of Aspergillus flavus (LD90, 25 .mu.M) and A. fumigatus (LD98, 2.5 .mu.M) and for nongerminating and germinating conidia of Fusarium moniliforme

(LD98, 1.25 .mu.M) and F. oxysporum (LD95, 2.5 .mu.M) at concns. similar to those previously reported for LCB. It was lethal for Candida albicans with an LD98 at 12.5 .mu.M. DCB was not active for the nongerminating conidia of A. fumigatus or A. flavus. Papain, trypsin, pepsin A and Staphylococcus aureus V8 protease degraded LCB, but not DCB. Binding assays and CD showed DCB and LCB bound to cholesterol, ergosterol, . **beta.-1,3-glucan**, mannan and **chitin**. Data show that DCB retains the potent fungicidal properties of the L-form, while being resistant to proteolytic enzymes that degrade the latter peptide. D-Enantiomerization of cecropin B yields a novel fungicidal peptide, which resists proteolytic degrdn. and is lethal for pathogenic fungi.

ST Cecropin B enantiomer prepn fungicide proteolytic resistance

IT Fungicides
Protein degradation
(prepn., fungicidal activity and proteolytic resistance of D-Cecropin B)

IT 304440-91-3P, D-Cecropin B
RL: AGR (Agricultural use); PRP (Properties); SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn., fungicidal activity and proteolytic resistance of D-Cecropin B)

RE.CNT 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

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L86 ANSWER 8 OF 32 HCAPLUS COPYRIGHT 2003 ACS
AN 2000:666570 HCAPLUS
DN 133:256591
TI Use of surfactant mixtures containing .**beta**.-(**1**.fwdarw.**3**)-**glucans** for dentifrices
IN **Griesbach, Ute**; **Wachter, Rolf**; **Fabry, Bernd**; **Engstad, Rolf E.**
PA **Cognis** Deutschland G.m.b.H., Germany; **Biotec** Asa
SO PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DT Patent
LA German
IC ICM A61K007-16
CC 62-7 (Essential Oils and **Cosmetics**)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000054739	A1	20000921	WO 2000-EP1828	20000303 <--
	W: AU, CA, CN, JP, KR, NZ, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	DE 19911055	A1	20000921	DE 1999-19911055	19990312 <--
	EP 1165028	A1	20020102	EP 2000-909298	20000303 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2002539145	T2	20021119	JP 2000-604817	20000303 <--
PRAI	DE 1999-19911055	A	19990312 <--		
	WO 2000-EP1828	W	20000303 <--		

AB The invention relates to the use of surfactant mixts., comprising (a) anionic and/or non-ionic surfactants and (b) water-sol. .**beta**.-(**1**.fwdarw.**3**)-**glucans** which are substantially free of .beta.-(1.fwdarw.6) links. Said mixts. are used to produce oral hygiene and dental hygiene products, in particular, toothpastes. The prepns. are characterized in that the mucous membranes in the mouth have a particularly high degree of tolerability with regard thereto, by exhibiting exceptional foaming properties and a stable distribution of the abrasive substances.
ST dentifrice beta **glucan** surfactant mixt
IT Chewing gum
Dentifrices
Mouthwashes
Surfactants
(surfactant mixts. contg. .**beta**.-(**1**.fwdarw.**3**)-**glucans** for dentifrices)
IT Saccharomyces
Trichoderma harzianum
(.**beta**.-(**1**.fwdarw.**3**)-**glucans** of; surfactant mixts. contg. .**beta**.-(**1**.fwdarw.**3**)-**glucans** for dentifrices)
IT **9012-76-4, Chitosan 9012-76-4D, Chitosan**, derivs. **9051-97-2**
RL: BUU (Biological use, unclassified); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process); USES (Uses)
(surfactant mixts. contg. .**beta**.-(**1**.fwdarw.**3**)-**glucans** for dentifrices)
RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

(1) Anon; PATENT ABSTRACTS OF JAPAN 1999, V1999(01)
(2) Biotec Mackzymal As; WO 9530022 A 1995 HCAPLUS
(3) Ciba Geigy Ag; WO 9932073 A 1999 HCAPLUS
(4) Fmc Corp; GB 2176795 A 1987 HCAPLUS
(5) Gaffar, A; US 3931398 A 1976 HCAPLUS
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(7) Larm, O; WO 9530403 A 1995 HCAPLUS
(8) Takeda Chem Ind Ltd; JP 10287536 A 1998 HCAPLUS

IT **9012-76-4, Chitosan 9012-76-4D, Chitosan**, derivs. **9051-97-2**
RL: BUU (Biological use, unclassified); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process); USES (Uses)
(surfactant mixts. contg. **.beta.-(1.fwdarw.3)-glucans** for dentifrices)

RN 9012-76-4 HCAPLUS
CN Chitosan (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9012-76-4 HCAPLUS
CN Chitosan (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9051-97-2 HCAPLUS
CN .beta.-D-Glucan, (1.fwdarw.3)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L86 ANSWER 9 OF 32 HCAPLUS COPYRIGHT 2003 ACS
AN **2000:666569** HCAPLUS
DN **133:256560**
TI **Cosmetic** preparations containing **chitosans** and **.beta.-(1.fwdarw.3)-glucans**
IN **Griesbach, Ute; Wachter, Rolf; Ansmann, Achim ; Fabry, Bernd; Eisfeld, Wolf; Engstad, Rolf E.**
PA **Cognis** Deutschland G.m.b.H., Germany; **Biotec** Asa
SO PCT Int. Appl., 30 pp.
CODEN: PIXXD2
DT Patent
LA German
IC ICM A61K007-06
ICS A61K007-48
CC 62-4 (Essential Oils and **Cosmetics**)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000054738	A1	20000921	WO 2000-EP1837	20000303 <--
	W: AU, CA, CN, JP, KR, NZ, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	DE 19911056	A1	20000921	DE 1999-19911056	19990312 <--
	EP 1165020	A1	20020102	EP 2000-907664	20000303 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2002539144	T2	20021119	JP 2000-604816	20000303 <--
PRAI	DE 1999-19911056	A	19990312 <--		
	WO 2000-EP1837	W	20000303 <--		

AB The invention relates to **cosmetic** prepns. contg. (a) water-sol. **.beta.-(1.fwdarw.3)-glucans**, substantially devoid of .beta.-(1.fwdarw.6) links and (b) **chitosans**. The agents are suitable for hair care and personal hygiene and can also be used for sun protection.

ST **cosmetic** hair beta **glucan chitosan**

IT **Cosmetics**
Hair preparations
Molecular weight distribution
(**cosmetic** prepns. contg. **chitosans** and
.beta.-(1.fwdarw.3)-glucans)
IT Saccharomyces
Trichoderma harzianum
(**.beta.-(1.fwdarw.3)-glucans**
of; **cosmetic** prepns. contg. **chitosans** and
.beta.-(1.fwdarw.3)-glucans)
IT **37228-69-6, .beta.-(1.fwdarw.6)**
Glucanase
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(**cosmetic** prepns. contg. **chitosans** and
.beta.-(1.fwdarw.3)-glucans)
IT **9012-76-4, Chitosan 9012-76-4D,**
Chitosan, derivs. **9051-97-2 9051-97-2D,**
derivs.
RL: BUU (Biological use, unclassified); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process); USES (Uses)
(**cosmetic** prepns. contg. **chitosans** and
.beta.-(1.fwdarw.3)-glucans)
RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
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(2) Ciba Geigy Ag; GB 2286530 A 1995 HCAPLUS
(3) Henkel Kgaa de; WO 9840082 A 1998 HCAPLUS
(4) Nestle Sa; EP 0377091 A 1990 HCAPLUS
(5) Onsoyen, E; SOFW-JOURNAL SEIFEN, OELE, FETTE, WACHSE 1991, V117(16), P633
(6) ZUlli, F; COSMETICS AND TOILETRIES MANUFACTURE WORLDWIDE 1994, P131
(7) ZUlli, F; Euro-Cosmetics 1995, V11(11), P46
IT **37228-69-6, .beta.-(1.fwdarw.6)**
Glucanase
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(**cosmetic** prepns. contg. **chitosans** and
.beta.-(1.fwdarw.3)-glucans)
RN 37228-69-6 HCAPLUS
CN Glucanase, 1,6-.beta.- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT **9012-76-4, Chitosan 9012-76-4D,**
Chitosan, derivs. **9051-97-2 9051-97-2D,**
derivs.
RL: BUU (Biological use, unclassified); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process); USES (Uses)
(**cosmetic** prepns. contg. **chitosans** and
.beta.-(1.fwdarw.3)-glucans)
RN 9012-76-4 HCAPLUS
CN Chitosan (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9012-76-4 HCAPLUS
CN Chitosan (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9051-97-2 HCAPLUS
CN .beta.-D-Glucan, (1.fwdarw.3)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9051-97-2 HCAPLUS
CN .beta.-D-Glucan, (1.fwdarw.3)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L86 ANSWER 10 OF 32 HCAPLUS COPYRIGHT 2003 ACS
AN 2000:666568 HCAPLUS
DN 133:256545
TI **Cosmetic** hair care preparations containing .**beta**.-(**1**.fwdarw.**3**)-**glucans** which are substantially devoid of .beta.-(1.fwdarw.6) links
IN **Griesbach, Ute; Fabry, Bernd; Wachter, Rolf; Engstad, Rolf E.**
PA **Cognis** Deutschland G.m.b.H., Germany; **Biotec** ASA
SO PCT Int. Appl., 25 pp.
CODEN: PIXXD2
DT Patent
LA German
IC ICM A61K007-06
CC 62-3 (Essential Oils and **Cosmetics**)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000054737	A1	20000921	WO 2000-EP1834	20000303 <--
	W: AU, CA, CN, JP, KR, NZ, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	DE 19911057	A1	20000921	DE 1999-19911057	19990312 <--
	DE 19911057	C2	20010125		
	EP 1165023	A1	20020102	EP 2000-916896	20000303 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2002539143	T2	20021119	JP 2000-604815	20000303 <--
	US 6497865	B1	20021224	US 2002-936788	20020123 <--
PRAI	DE 1999-19911057	A	19990312 <--		
	WO 2000-EP1834	W	20000303 <--		

AB The invention relates to **cosmetic** hair care prepns. contg.: (a) water-sol. .**beta**.-(**1**.fwdarw.**3**)-**glucans** which are substantially devoid of .beta.-(1.fwdarw.6) links and (b) polymers. The addn. of the special **glucans** to the polymers reduces the formation of stress-cracking in the polymer films when the prepn. is absorbed by the hair.
ST **cosmetic** hair polymer prepn beta **glucan**
IT **Hair preparations**
(**cosmetic** hair care prepns. contg. .**beta**.-(**1**.fwdarw.**3**)-**glucans** which are substantially devoid of .beta.-(1.fwdarw.6) links)
IT Polymers, biological studies
RL: BUU (Biological use, unclassified); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process); USES (Uses)
(**cosmetic** hair care prepns. contg. .**beta**.-(**1**.fwdarw.**3**)-**glucans** which are substantially devoid of .beta.-(1.fwdarw.6) links)
IT Saccharomyces
(.beta.-**glucans** of; **cosmetic** hair care prepns. contg. .**beta**.-(**1**.fwdarw.**3**)-**glucans** which are substantially devoid of .beta.-(1.fwdarw.6) links)
IT **9012-76-4, Chitosan 9012-76-4D, Chitosan**, derivs. **9051-97-2** 25086-89-9
RL: BUU (Biological use, unclassified); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process); USES (Uses)
(**cosmetic** hair care prepns. contg. .**beta**.-(**1**.fwdarw.**3**)-**glucans** which are substantially devoid of .beta.-(1.fwdarw.6) links)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
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(2) Ciba Geigy Ag; GB 2286530 A 1995 HCAPLUS
(3) Halleck, F; US 3507290 A 1970 HCAPLUS
(4) Henkel Kgaa; WO 9702007 A 1997 HCAPLUS
IT **9012-76-4, Chitosan 9012-76-4D, Chitosan**, derivs. **9051-97-2**
RL: BUU (Biological use, unclassified); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process); USES (Uses)
(**cosmetic** hair care prepns. contg. **.beta.-(1.fwdarw.3)-glucans** which are substantially devoid of .beta.-(1.fwdarw.6) links)
RN 9012-76-4 HCAPLUS
CN Chitosan (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9012-76-4 HCAPLUS
CN Chitosan (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9051-97-2 HCAPLUS
CN .beta.-D-Glucan, (1.fwdarw.3)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L86 ANSWER 11 OF 32 HCAPLUS COPYRIGHT 2003 ACS
AN 2000:431182 HCAPLUS
DN 133:165331
TI The evaluation of the effect of technological factors on properties of a **chitin-glucan** polymer
AU Kanarskaya, Z. A.; Gamayurova, V. S.; Shabrukova, N. V.; Strebkova, L. N.; Kanarskii, A. V.; Izbranova, S. I.
CS Russia
SO Plasticheskie Massy (**2000**), (5), 28-30
CODEN: PLMSAI; ISSN: 0554-2901
PB ZAO NP "Plasticheskie Massy"
DT Journal
LA Russian
CC 44-5 (Industrial Carbohydrates)
AB A model describing the effect of parameters of alkali treatment such as temp., treatment time, and concn. of NaOH on physicomech. properties of **chitin-glucan** copolymer obtained from Aspergillus niger was developed.
ST **chitin glucan** polymer prepn modeling
IT Aspergillus niger
Simulation and Modeling, physicochemical
(evaluation of the intensity of the effect of technol. factors in the properties of a **chitin-glucan** polymer)
IT 1310-73-2, Sodium hydroxide, uses
RL: NUU (Other use, unclassified); USES (Uses)
(evaluation of the intensity of the effect of technol. factors in the properties of a **chitin-glucan** polymer)
IT **287935-68-6, Chitin-glucan** copolymer
RL: PRP (Properties)
(evaluation of the intensity of the effect of technol. factors in the properties of a **chitin-glucan** polymer)
IT **287935-68-6, Chitin-glucan** copolymer
RL: PRP (Properties)
(evaluation of the intensity of the effect of technol. factors in the properties of a **chitin-glucan** polymer)
RN 287935-68-6 HCAPLUS
CN Chitin, polymer with D-glucan (9CI) (CA INDEX NAME)

CM 1

CRN 9012-72-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 1398-61-4
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L86 ANSWER 12 OF 32 HCAPLUS COPYRIGHT 2003 ACS
AN 2000:397954 HCAPLUS
DN 133:161171
TI Inhibition of fungal cell wall synthesizing enzymes by trans-cinnamaldehyde
AU Bang, Kyu-Ho; Lee, Dong-Won; Park, Hee-Moon; Rhee, Young-Ha
CS Department of Microbiology, College of Natural Sciences, Chungnam National University, Taejon, 305-764, S. Korea
SO Bioscience, Biotechnology, and Biochemistry (**2000**), 64(5), 1061-1063
CODEN: BBBIEJ; ISSN: 0916-8451
PB Japan Society for Bioscience, Biotechnology, and Agrochemistry
DT Journal
LA English
CC 7-3 (Enzymes)
Section cross-reference(s): **1**
AB This study examd. the inhibitory effects of trans-cinnamaldehyde (CA), an arom. aldehyde derived from Cinnamomi Cortex, on Saccharomyces cerevisiae cell wall synthesizing enzymes in vitro. This compd. was found to be a noncompetitive inhibitor of **.beta.-(1,3)-glucan** synthase and a mixed inhibitor of **chitin** synthase 1 with 50% inhibitory concns. (IC50) of 0.84 and 1.44 mM, resp. **Chitin** synthases 2 and 3 were less sensitive than **chitin** synthase 1 to CA. CA can be useful as a model compd. of cell wall inhibitors for the development of effective antifungal agents.
ST Saccharomyces glucan **chitin** synthase inhibition cinnamaldehyde; cell wall synthesizing enzyme inhibition cinnamaldehyde
IT Cell wall
Fungicides
Saccharomyces cerevisiae
(inhibition of fungal cell wall synthesizing enzymes by trans-cinnamaldehyde in relation to development of antifungal agents)
IT Enzyme kinetics
(of inhibition; inhibition of fungal cell wall synthesizing enzymes by trans-cinnamaldehyde in relation to development of antifungal agents)
IT 9030-18-6, **Chitin** synthase
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(1, 2 and 3; inhibition of fungal cell wall synthesizing enzymes by trans-cinnamaldehyde in relation to development of antifungal agents)
IT 14371-10-9, trans-Cinnamaldehyde
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(inhibition of fungal cell wall synthesizing enzymes by trans-cinnamaldehyde in relation to development of antifungal agents)
IT 9037-30-3, **.beta.-(1,3)-Glucan**

synthase
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(inhibition of fungal cell wall synthesizing enzymes by trans-cinnamaldehyde in relation to development of antifungal agents)
RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
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(2) Bullerman, L; J Food Sci 1977, V42, P1107 HCAPLUS
(3) Cabib, E; Antimicrob Agents Chemother 1991, V35, P170 HCAPLUS
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(6) Gaughran, J; J Bacteriol 1994, V18, P5857
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(8) Lowry, O; J Biol Chem 1951, V193, P265 HCAPLUS
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(12) Schmatz, D; J Antibiotics 1992, V45, P1886 HCAPLUS
(13) Shaw, J; J Cell Biol 1991, V114, P111 HCAPLUS
(14) Silverman, S; Proc Natl Acad Sci USA 1988, V85, P4735 HCAPLUS

L86 ANSWER 13 OF 32 HCAPLUS COPYRIGHT 2003 ACS
AN 2000:254281 HCAPLUS
DN 133:19032
TI Carboxymethylation of fungal **chitin-glucan** complexes and the sorption properties of the products
AU Nud'ga, L. A.; Petrova, V. A.; Ganicheva, S. I.; Baklagina, Yu. G.; Petropavlovskii, G. A.
CS Inst. Vysokomolekulyarnykh Soedinenii, RAN, St. Petersburg, Russia
SO Zhurnal Prikladnoi Khimii (Sankt-Peterburg) (**2000**), 73(2), 297-301
CODEN: ZPKHAB; ISSN: 0044-4618
PB Nauka
DT Journal
LA Russian
CC 44-5 (Industrial Carbohydrates)
AB Aspergillus niger-generated **chitin-glucan** complex is carboxymethylated and the reaction is compared to that of **chitin** from animal source and Fomes fomentarius-produced **chitin-glucan** complex. The products with various amino and carboxy group content are prepd. Sorption kinetics of Cr(III) by the carboxymethylation products is studied in relation to pH.
ST aspergillus niger **chitin glucan** complex carboxymethylation chromium sorption
IT Aspergillus niger
Carboxymethylation
Fomes fomentarius
Sorbents
(carboxymethylation of fungal **chitin-glucan** complexes and the sorption properties of the carboxymethylated products)
IT **52519-63-8P, Carboxymethylchitin**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(carboxymethylation of fungal **chitin-glucan** complexes and the sorption properties of the carboxymethylated products)
IT 79-11-8, Monochloroacetic acid, reactions **1398-61-4, Chitin 232922-12-2**
RL: RCT (Reactant); RACT (Reactant or reagent)
(carboxymethylation of fungal **chitin-glucan** complexes and the sorption properties of the carboxymethylated products)

IT 7440-47-3, Chromium, processes
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(sorption of; carboxymethylation of fungal **chitin-glucan** complexes and the sorption properties of the carboxymethylated products)
IT **52519-63-8P, Carboxymethylchitin**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(carboxymethylation of fungal **chitin-glucan** complexes and the sorption properties of the carboxymethylated products)
RN 52519-63-8 HCAPLUS
CN Chitin, carboxymethyl ether (9CI) (CA INDEX NAME)

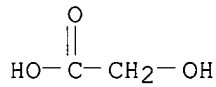
CM 1

CRN 1398-61-4
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 79-14-1
CMF C2 H4 O3



IT **1398-61-4, Chitin 232922-12-2**
RL: RCT (Reactant); RACT (Reactant or reagent)
(carboxymethylation of fungal **chitin-glucan** complexes and the sorption properties of the carboxymethylated products)
RN 1398-61-4 HCAPLUS
CN Chitin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 232922-12-2 HCAPLUS
CN Chitin, compd. with D-glucan (9CI) (CA INDEX NAME)

CM 1

CRN 9012-72-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 1398-61-4
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L86 ANSWER 14 OF 32 HCAPLUS COPYRIGHT 2003 ACS
AN 2000:249786 HCAPLUS
DN 132:289943

TI Phytopathogenic fungi control agents containing **chitinase**
IN Koga, Daizo; Omura, Hiroshi; Yoshikawa, Sadaki
PA Sanin Kensetsu Kogyo K. K., Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM A01N063-00
CC 5-2 (Agrochemical Bioregulators)
Section cross-reference(s): 7, 16
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000109405	A2	20000418	JP 1999-220929	19990804 <--
	JP 3115289	B2	20001204		
PRAI	JP 1998-220212	A	19980804 <--		

AB The control agents contain **chitinase** (I) and optional .beta.-1,3-**glucanase** (II). I may be Yam H2 (sequence given) or Yam H2 (sequence given) derived from yam. Precultured rice cells were shake-cultured with **chitosan** as an inducer to give I. I inhibited in vitro growth of Pyricularia oryzae and Phoma wasabiae. Combined application of I and II (Zymolyase) induced cell wall lysis of Fusarium oxysporum. Isolation of Yam H1 and Yam H2 from Dioscorea opposita and detn. of their partial sequences based on sequences of PCR fragments amplified from the genomic DNA were also shown.

ST phytopathogenic fungi control **chitinase** beta **glucanase** ; agrochem fungicide yam **chitinase**; Dioscorea **chitinase** agrochem fungicide; sequence amino acid **chitinase** yam agrochem fungicide

IT Fungicides
(agrochem.; phytopathogenic fungi control agents contg. **chitinase**, esp. that derived from yam (Dioscorea))

IT Rice (Oryza sativa)
(**chitinase** from; phytopathogenic fungi control agents contg. **chitinase**, esp. that derived from yam (Dioscorea))

IT Protein sequences
Yam (Dioscorea)
Yam (Dioscorea opposita)
(phytopathogenic fungi control agents contg. **chitinase**, esp. that derived from yam (Dioscorea))

IT 264886-81-9 264886-86-4
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
(amino acid sequence; phytopathogenic fungi control agents contg. **chitinase**, esp. that derived from yam (Dioscorea))

IT **9001-06-3, Chitinase 263386-65-8**
263386-66-9
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
(phytopathogenic fungi control agents contg. **chitinase**, esp. that derived from yam (Dioscorea))

IT **9001-06-3, Chitinase 263386-65-8**
263386-66-9
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
(phytopathogenic fungi control agents contg. **chitinase**, esp. that derived from yam (Dioscorea))

RN 9001-06-3 HCAPLUS
CN Chitinase (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 263386-65-8 HCAPLUS
CN Chitinase, mixt. with 1,3-.beta.-glucanase (9CI) (CA INDEX NAME)

CM 1

CRN 9044-93-3
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 9001-06-3
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 263386-66-9 HCAPLUS
CN Chitinase, mixt. with endo-1,3-.beta.-glucanase zymolyase (9CI) (CA INDEX NAME)

CM 1

CRN 9025-37-0
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 9001-06-3
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L86 ANSWER 15 OF 32 HCAPLUS COPYRIGHT 2003 ACS
AN 2000:220879 HCAPLUS
DN 133:86617
TI Inhibitors of the fungal cell wall. Synthesis of 4-aryl-4-N-arylamine-1-butenes and related compounds with inhibitory activities on .**beta**.(**1-3**) **glucan** and **chitin** synthases
AU Urbina, J. M.; Cortes, J. C. G.; Palma, A.; Lopez, S. N.; Zacchino, S. A.; Enriz, R. D.; Ribas, J. C.; Kouznetzov, V. V.
CS School of Chemistry, Laboratory of Fine Organic Chemistry, Industrial University of Santander, Bucaramanga, Colombia
SO Bioorganic & Medicinal Chemistry (**2000**), 8(4), 691-698
CODEN: BMECEP; ISSN: 0968-0896
PB Elsevier Science Ltd.
DT Journal
LA English
CC 10-5 (Microbial, Algal, and Fungal Biochemistry)
Section cross-reference(s): 7
AB As part of our project devoted to the search for antifungal agents, which act via a selective mode of action, we synthesized a series of new 4-aryl- or 4-alkyl-N-arylamine-1-butenes and transformed some of them into 2-substituted 4-methyl-tetrahydroquinolines and quinolines by using a novel three-step synthesis. Results obtained in agar diln. assays have shown that 4-aryl homoallylamines not possessing halogen in their structures, tetrahydroquinolines and quinolines, display a range of

antifungal properties in particular against Epidermophyton floccosum and Microsporum canis. Regarding the mode of action, all active compds. showed in vitro inhibitory activities against .**beta.**(**1-3**)-**glucan** synthase and mainly against **chitin** synthase. These enzymes catalyze the synthesis of .**beta.**(**1-3**)-**glucan** and **chitin**, resp., major polymers of the fungal cell wall. Since fungal but not mammalian cells are encased in a cell wall, its inhibition may represent a useful mode of action for these antifungal compds.

ST homoallylamine fungicide synthesis glucan **chitin** synthase inhibition; methylquinolone fungicide synthesis glucan **chitin** synthase inhibition; tetrahydroquinoline fungicide synthesis glucan **chitin** synthase inhibition

IT Structure-activity relationship
(fungicidal; of arylarylamine butenes and related compds.)

IT Cell wall
Epidermophyton floccosum
Fungicides
Microsporum canis
Skin-infecting fungi
(synthesis of arylarylamine butenes and related compds. with inhibitory activities on glucan and **chitin** synthases)

IT 331-98-6 538-51-2 780-20-1 780-21-2 783-08-4 836-41-9 2272-45-9 4128-67-0 4275-07-4 5877-55-4 15486-62-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(in synthesis of arylarylamine butenes and related compds.)

IT 66489-79-0P 172041-18-8P 254992-96-6P 280573-71-9P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(synthesis of arylarylamine butenes and related compds. with inhibitory activities on glucan and **chitin** synthases)

IT 4789-76-8P 101246-25-7P 150562-30-4P 154225-10-2P 179314-47-7P 181762-18-5P 201009-53-2P 280573-68-4P 280573-69-5P 280573-70-8P 280573-72-0P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthesis of arylarylamine butenes and related compds. with inhibitory activities on glucan and **chitin** synthases)

IT 9030-18-6, **Chitin** synthase 9037-30-3, .**beta.**(**1-3**)-**Glucan** synthase
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(synthesis of arylarylamine butenes and related compds. with inhibitory activities on glucan and **chitin** synthases)

RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

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(2) Anon; 1992 HCAPLUS
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L86 ANSWER 16 OF 32 HCAPLUS COPYRIGHT 2003 ACS
AN 2000:81698 HCAPLUS
DN 132:241761
TI Ultrasonic depolymerization of the **chitin-glucan** isolated from Aspergillus niger
AU Machova, E.; Kogan, G.; Soltes, L.; Kvapilova, K.; Sandula, J.
CS Institute of Chemistry, Slovak Academy of Sciences, Bratislava, SK-842 38, Slovakia
SO Reactive & Functional Polymers (**1999**), 42(3), 265-271
CODEN: RFPOF6; ISSN: 1381-5148
PB Elsevier Science B.V.
DT Journal
LA English
CC 63-5 (Pharmaceuticals)
Section cross-reference(s): 1, 44
AB By means of 2 fractions of the carboxymethylated **chitin-glucan** complex isolated from the cell walls of the filamentous fungus A. niger were obtained. Elemental anal. as well as 13C NMR investigation of the high-mol. wt. (Mw 680 kDa) and low-mol. wt. (Mw 75 kDa) fractions revealed their essentially different **chitin** content. HPLC anal. of the fractions produced by ultrasonic treatment of different duration, combined with nitrogen assay showed steadily increasing **chitin** content in the faster eluted fraction that allows one to suggest the different susceptibility of the two components of the **chitin-glucan** complex to the ultrasonication.
ST ultrasonic depolymn **chitin glucan** Aspergillus
IT Aspergillus niger
Depolymerization
Sound and Ultrasound
(ultrasonic depolymn. of **chitin-glucan** isolated from Aspergillus niger)
IT **232922-12-2**
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); RACT (Reactant or reagent); USES (Uses)
(ultrasonic depolymn. of **chitin-glucan** isolated from Aspergillus niger)
IT **232922-12-2DP**, carboxymethylated
RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use);

BIOL (Biological study); PREP (Preparation); USES (Uses)
(ultrasonic depolymn. of **chitin-glucan** isolated
from Aspergillus niger)
RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
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IT **232922-12-2**
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); RACT (Reactant or reagent); USES (Uses)
(ultrasonic depolymn. of **chitin-glucan** isolated
from Aspergillus niger)
RN 232922-12-2 HCAPLUS
CN Chitin, compd. with D-glucan (9CI) (CA INDEX NAME)

CM 1

CRN 9012-72-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 1398-61-4
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT **232922-12-2DP**, carboxymethylated
RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(ultrasonic depolymn. of **chitin-glucan** isolated
from Aspergillus niger)
RN 232922-12-2 HCAPLUS
CN Chitin, compd. with D-glucan (9CI) (CA INDEX NAME)

CM 1

CRN 9012-72-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 1398-61-4
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L86 ANSWER 17 OF 32 HCAPLUS COPYRIGHT 2003 ACS
AN 1999:585476 HCAPLUS
DN 131:297555
TI Deuteration of the **chitin-glucan** complex in the mycelium of Aspergillus niger
AU Nud'ga, L. A.; Petrova, V. A.; Ganicheva, S. I.; Vybornova, T. V.; L'vova, E. B.; Alekseev, V. L.; Evmenenko, G. A.; Petropavlovskii, G. A.
CS Institute of Macromolecular Compounds, Russian Academy of Sciences, St. Petersburg, 199004, Russia
SO Prikladnaya Biokhimiya i Mikrobiologiya (**1999**), 35(2), 223-226
CODEN: PBMIAK; ISSN: 0555-1099
PB MAIK Nauka
DT Journal
LA Russian
CC 10-6 (Microbial, Algal, and Fungal Biochemistry)
AB Biosynthesis in heavy water was used to achieve deuteration of the **chitin-glucan** complex in the mycelium of Aspergillus niger. The biosynthesis in heavy water was demonstrated to be less active compared to that taking place under ordinary conditions. Chem. compn. of the complex and its supramol. organization were studied. NMR-H1 demonstrated that deuteration occurs at position C-2 of the N-acetylglucosamine pyranose ring of the **chitin** macrochain.
ST Aspergillus **chitin glucan** complex deuteration
IT Aspergillus niger
Deuteration
(deuteration of **chitin-glucan** complex in mycelium of Aspergillus niger)
IT **232922-12-2**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(deuteration of **chitin-glucan** complex in mycelium of Aspergillus niger)
IT **232922-12-2**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(deuteration of **chitin-glucan** complex in mycelium of Aspergillus niger)
RN 232922-12-2 HCAPLUS
CN Chitin, compd. with D-glucan (9CI) (CA INDEX NAME)

CM 1

CRN 9012-72-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 1398-61-4
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L86 ANSWER 18 OF 32 HCAPLUS COPYRIGHT 2003 ACS
AN 1999:334906 HCAPLUS
DN 131:117669
TI Conformation of chains of **chitin-glucan** complex according to small-angle neutron scattering data
AU Evmenenko, G. A.; Alekseev, V. L.; Nud'ga, L. A.; Petrova, V. A.
CS Konstantinov Institute of Nuclear Physics, Russian Academy of Sciences, Gatchina, 188350, Russia
SO Vysokomolekulyarnye Soedineniya, Seriya A i Seriya B (**1998**), 40(8), 1398-1402
CODEN: VSSBEE; ISSN: 1023-3091
PB MAIK Nauka
DT Journal
LA Russian
CC 44-5 (Industrial Carbohydrates)
AB Small-angle scattering of thermal neutrons (SANS) was used to study the conformation of single chains of a partially deuterated **chitin-glucan** complex introduced in amorphous films of a normal complex. It is shown that chain conformation are more compact as compared to that of a Gaussian coil. This is probably due to fast coagulation of a polymer in the course of film prepn. Mol. mass distribution detd. from SANS data is consistent with the data on dynamic light scattering from **chitin-glucan** complex in soln.
ST **chitin glucan** complex chain conformation
IT Conformation
(conformation of chains of **chitin-glucan** complex according to small-angle neutron scattering data)
IT **232922-12-2**
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(conformation of chains of **chitin-glucan** complex according to small-angle neutron scattering data)
IT **232922-12-2**
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(conformation of chains of **chitin-glucan** complex according to small-angle neutron scattering data)
RN 232922-12-2 HCAPLUS
CN Chitin, compd. with D-glucan (9CI) (CA INDEX NAME)

CM 1

CRN 9012-72-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 1398-61-4
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L86 ANSWER 19 OF 32 HCAPLUS COPYRIGHT 2003 ACS

AN 1999:99597 HCAPLUS
DN 130:291116
TI Fungal lethality, binding, and cytotoxicity of syringomycin-E
AU De lucca, A. J.; Jacks, T. J.; Takemoto, J.; Vinyard, B.; Peter, J.; Navarro, E.; Walsh, T. J.
CS Southern Regional Research Center, Agricultural Research Service, U.S. Department of Agriculture, New Orleans, LA, 70124, USA
SO Antimicrobial Agents and Chemotherapy (**1999**), 43(2), 371-373
CODEN: AMACCQ; ISSN: 0066-4804
PB American Society for Microbiology
DT Journal
LA English
CC 1-5 (**Pharmacology**)
Section cross-reference(s): 10
AB Syringomycin-E (SE) was significantly lethal to Aspergillus and Fusarium species at between 1.9 and 7.8 .mu.g/mL. SE complexed with the following fungal wall constituents (in order of binding): **.beta.-1,3-glucan** > **chitin** > mannan > ergosterol = cholesterol. Cytotoxicity in HeLa cells was proportional to the SE concn., while the amt. required for cytotoxicity was 3 to 20 times that needed to kill 95% of the fungi tested.
ST antimicrobial syringomycin E cytotoxicity Aspergillus Fusarium
IT Aspergillus flavus
Aspergillus fumigatus
Aspergillus niger
Cell wall
Drug interactions
Fungicides
Fusarium moniliforme
Fusarium oxysporum
(fungal lethality, binding, and cytotoxicity of syringomycin-E)
IT 124888-22-8, Syringomycin-E
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); PROC (Process); USES (Uses)
(fungal lethality, binding, and cytotoxicity of syringomycin-E)
IT 57-87-4, Ergosterol 57-88-5, Cholesterol, biological studies **1398-61-4, Chitin** 9036-88-8, Mannan **9051-97-2**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(fungal lethality, binding, and cytotoxicity of syringomycin-E)
RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
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IT **1398-61-4, Chitin 9051-97-2**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(fungal lethality, binding, and cytotoxicity of syringomycin-E)
RN 1398-61-4 HCAPLUS
CN Chitin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9051-97-2 HCAPLUS
CN .beta.-D-Glucan, (1.fwdarw.3)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L86 ANSWER 20 OF 32 HCAPLUS COPYRIGHT 2003 ACS
AN 1998:301184 HCAPLUS
DN 129:2530
TI Changes in the compositions of structural components of cell walls of Aspergillus niger depending on cultivation conditions
AU Nemtsev, D. V.; Kozlov, V. P.; Tereshina, V. M.; Memorskaya, A. S.; Feofilova, E. P.
CS AO "Tsitrobel", Belgorod, Russia
SO Prikladnaya Biokhimiya i Mikrobiologiya (**1998**), 34(1), 95-98
CODEN: PBMIAK; ISSN: 0555-1099
PB MAIK Nauka
DT Journal
LA Russian
CC 10-1 (Microbial, Algal, and Fungal Biochemistry)
AB The content and ratio of biopolymers in the **chitin-glucan** complex of cell walls of Aspergillus niger were studied in various culture media. The highest level of **chitin-glucan** complex was found in fungi growing in a medium contg. sucrose and ammonium nitrogen. The fungus synthesized higher level of **glucan** in comparison to **chitin** on a rich medium contg. high level of org. nitrogen.
ST Aspergillus cell wall **chitin glucan** complex
IT Aspergillus niger
Cell wall
(changes in compns. of structural components of cell walls of Aspergillus niger depending on cultivation conditions)
IT **1398-61-4, Chitin** 9012-72-0, **Glucan**
136305-06-1, Chitin, mixt. with D-**glucan**
RL: PRP (Properties)
(changes in compns. of structural components of cell walls of Aspergillus niger depending on cultivation conditions)
IT **1398-61-4, Chitin 136305-06-1, Chitin**
, mixt. with D-**glucan**
RL: PRP (Properties)
(changes in compns. of structural components of cell walls of Aspergillus niger depending on cultivation conditions)
RN 1398-61-4 HCAPLUS
CN Chitin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 136305-06-1 HCAPLUS
CN Chitin, mixt. with D-glucan (9CI) (CA INDEX NAME)

CM 1

CRN 9012-72-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

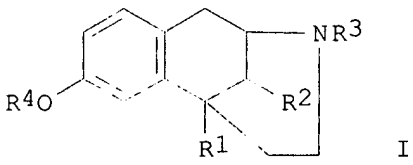
CRN 1398-61-4
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L86 ANSWER 21 OF 32 HCAPLUS COPYRIGHT 2003 ACS
AN 1998:274899 HCAPLUS
DN 129:41304
TI Optical resolution of medicinal 3-benzazocines by chromatography
IN Nagamatsu, Shinji; Oda, Hiroshi; Aotsuka, Satoshi; Abe, Naoki; Suzuki, Hajime; Sugimoto, Tetsuya
PA Daicel Chemical Industries, Ltd., Japan; Grelan Pharmaceutical Co.
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C07D221-26
ICS B01D015-08; C07B057-00; C07M007-00
CC 31-3 (Alkaloids)
Section cross-reference(s): 1
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 10114748	A2	19980506	JP 1996-289061	19961014 <--
PRAI JP 1996-289061		19961014 <--		

OS MARPAT 129:41304
GI



I

AB Isomeric mixts. of 3-benzazocines I (R1, R2 = C1-6 alkyl; R3 = C1-6 alkyl, C2-6 alkenyl, aralkyl, C3-6 cycloalkylmethyl; R4 = H, protective group) are sepd. by chromatog. using polysaccharides or their derivs. as sepn. agents. Pentazocine HCl salt was applied to Chiralcel OJ [column filled with cellulose tris(4-methylbenzoate) supported on silica gel] to give (-)- and (+)-pentazocine with 98% ee. Sepn. coeff. was 1.18.
ST optical resoln medicinal benzazocine chromatog; polysaccharide chromatog optical resoln benzazocine; cellulose chromatog optical resoln pentazocine
IT Liquid chromatography
Resolution (separation)
Supercritical fluid chromatography
(optical resoln. of medicinal benzazocines by chromatog. using polysaccharides)
IT Polysaccharides, uses
RL: NUU (Other use, unclassified); USES (Uses)
(optical resoln. of medicinal benzazocines by chromatog. using

polysaccharides)
IT **1398-61-4, Chitin** 9004-34-6, Cellulose, uses
9005-80-5, Inulin 9005-82-7, Amylose **9012-76-4**,
Chitosan 9014-63-5, Xylan 9036-88-8, Mannan 9051-95-0,
.alpha.-1,3-Glucan **9051-97-2** 103938-44-9, Cellulose
tris(3,5-dimethylphenylcarbamate) 108173-48-4, Cellulose
tris(4-methylbenzoate) 112049-40-8, Amylose tris(3,5-
dimethylphenylcarbamate) 128150-94-7, Chiralcel OJ 128874-18-0
RL: NUU (Other use, unclassified); USES (Uses)
(optical resoln. of medicinal benzazocines by chromatog. using
polysaccharides)
IT 64024-15-3, Pentazocine hydrochloride
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(optical resoln. of medicinal benzazocines by chromatog. using
polysaccharides)
IT 7361-76-4P, (+)-Pentazocine 7488-49-5P
RL: PUR (Purification or recovery); PREP (Preparation)
(optical resoln. of medicinal benzazocines by chromatog. using
polysaccharides)
IT **1398-61-4, Chitin 9012-76-4, Chitosan**
9051-97-2
RL: NUU (Other use, unclassified); USES (Uses)
(optical resoln. of medicinal benzazocines by chromatog. using
polysaccharides)
RN 1398-61-4 HCAPLUS
CN Chitin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9012-76-4 HCAPLUS
CN Chitosan (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9051-97-2 HCAPLUS
CN .beta.-D-Glucan, (1.fwdarw.3)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L86 ANSWER 22 OF 32 HCAPLUS COPYRIGHT 2003 ACS
AN 1997:484422 HCAPLUS
DN 127:181097
TI Fungal mycelia as the source of **chitin** and polysaccharides and
their applications as skin substitutes
AU Su, Ching-Hua; Sun, Chi-Shu; Juan, Shan-Wei; Hu, Chung-Hong; Ke, Wen-Ting;
Sheu, Ming-Thau
CS Center Biotechnical Development Res., Taipei Medical Coll., Taipei, Taiwan
SO Biomaterials (**1997**), 18(17), 1169-1174
CODEN: BIMADU; ISSN: 0142-9612
PB Elsevier
DT Journal
LA English
CC 63-7 (**Pharmaceuticals**)
AB A wovable skin substitute (Sacchachitin) made from the residue of the
fruiting body of Ganoderma tsugae was developed in this study. Chem.
anal. revealed that the treated residue was a copolymer of .**beta**
.-**1,3-glucan** (ca 60%) and
N-acetylglucosamine (ca 40%) with a filament structure of mycelia form, as
demonstrated by both optical and SEM. The pulp-like white residue was
then woven into thin, porous sheets 7.0 cm in diam. and 0.1-0.2 mm in
thickness by filtration and lyophilized for use as a skin substitute. The
wound area produced by dissecting rat skin of full thickness almost
completely healed on the side covered with Sacchachitin, whereas the
control side cover with cotton gauge was around 6.0 cm2 on the 28th day.
Furthermore, the wound healing effects of the **chitin** sheet from

crab shell (Beschitin) and Sacchachitin were not significantly different.
ST fungal mycelia **chitin** polysaccharide skin substitute
IT **Skin**
(artificial; **chitin** and polysaccharides of fungal mycelia as skin substitutes)
IT Ganoderma tsugae
Prosthetic materials and Prosthetics
Wound healing
(**chitin** and polysaccharides of fungal mycelia as skin substitutes)
IT Polysaccharides, biological studies
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(**chitin** and polysaccharides of fungal mycelia as skin substitutes)
IT Fungi
(mycelial; **chitin** and polysaccharides of fungal mycelia as skin substitutes)
IT **1398-61-4, Chitin** 7512-17-6, N-Acetylglucosamine **9051-97-2**
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(**chitin** and polysaccharides of fungal mycelia as skin substitutes)
IT **1398-61-4, Chitin 9051-97-2**
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(**chitin** and polysaccharides of fungal mycelia as skin substitutes)
RN 1398-61-4 HCAPLUS
CN Chitin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9051-97-2 HCAPLUS
CN .beta.-D-Glucan, (1.fwdarw.3)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L86 ANSWER 23 OF 32 HCAPLUS COPYRIGHT 2003 ACS
AN 1997:123465 HCAPLUS
DN 126:220153
TI Antifungals targeted to the cell wall
AU Georgopapadakou, N. H.
CS Dep. Mol. Biol., Princeton Univ., Princeton, NJ, USA
SO Expert Opinion on Investigational Drugs (**1997**), 6(2), 147-150
CODEN: EOIDER; ISSN: 0967-8298
PB Ashley Publications
DT Journal; General Review
LA English
CC 1-0 (**Pharmacology**)
Section cross-reference(s): 10
AB A review, with 7 refs. Serious fungal infections are increasingly common in immuno-compromised patients and existing antifungals do not completely satisfy the medical need. The latter have either considerable toxicity, e.g., amphotericin, which is, however, less toxic in lipid formulations, or have limited activity, e.g., azoles. Cell wall acting antifungals are inherently selective and fungicidal; two classes of compds. - nikkomycin Z targeted at **chitin** synthase, and echinocandin LY 303366 and pneumocandin L-743872 targeted at **.beta.-1,3 -glucan** synthase - are currently in clin. development.

ST review antifungal cell wall targeting
IT Cell wall
Fungicides
(antifungals targeted to cell wall)
IT 9030-18-6, **Chitin** synthase 9037-30-3, .**beta**.-**1,3-Glucan** synthase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibitors; antifungals targeted to cell wall)

L86 ANSWER 24 OF 32 HCAPLUS COPYRIGHT 2003 ACS
AN 1996:512190 HCAPLUS
DN 125:184572
TI Antifungals targeted to the cell wall
AU Georgopapadakou, N. H.
CS Department of Molecular Biology, Princeton University, Princeton, NJ, 08544-1014, USA
SO Emerging Drugs (**1996**), 1, 261-276
CODEN: EMDRFV; ISSN: 1361-9195
PB Ashley Publications
DT Journal; General Review
LA English
CC 1-0 (**Pharmacology**)
AB A review with 27 refs. Serious fungal infections, caused mostly by opportunistic species, are increasingly common in immunocompromised and other vulnerable patients. None of the existing antifungals completely satisfies the medical need: azoles are fungistatic and their future use may be eroded by the recent emergence of resistance; amphotericin, the only broad-spectrum, fungicidal drug suffers from serious host toxicity. Cell wall-acting antifungals are intrinsically selective (mammalian cells lack cell wall) and have potentially broad-spectrum, fungicidal activity. Three classes of compds. are targeted resp. to **chitin** synthase, **1,3-.beta.-glucan** synthase and mannoproteins are currently in clin. development.
ST review antifungal cell wall
IT Cell wall
Fungicides and Fungistats
(antifungals targeted to cell wall)

L86 ANSWER 25 OF 32 HCAPLUS COPYRIGHT 2003 ACS
AN 1996:494020 HCAPLUS
DN 125:117923
TI Preparation of **glucan-chitosan** complex
IN Teslenko, Aleksandr Ya.; Voevodina, Irina N.; Galkin, Aleksej V.; Lvova, Elena B.; Nikiforova, Tatyana A.; Nikolaeva, Svetlana V.; Mikhajlov, Boris V.; Kozlov, Viktor P.
PA Vserossijskij Nauchno-Issledovatelskij Institut Pishchevykh Aromatizatorov, Kislot I Krasitelej, Russia
SO Russ.
From: Izobreteniya 1995, (26), 186.
CODEN: RUXXE7
DT Patent
LA Russian
IC ICM C08B037-08
ICS C12P019-04
CC 44-5 (Industrial Carbohydrates)
Section cross-reference(s): 16
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI RU 2043995	C1	19950920	RU 1992-16176	19921229 <--
PRAI RU 1992-16176		19921229 <--		

AB Title only translated.
ST **glucan chitosan** complex prepn

IT Aspergillus niger
Blakeslea trispora
Deacetylation
Penicillium chrysogenum
Streptomyces roseum
(in prepn. of **glucan-chitosan** complex)
IT Fats and Glyceridic oils
Lipids, processes
RL: REM (Removal or disposal); PROC (Process)
(prepn. of **glucan-chitosan** complex)
IT 7647-01-0, Hydrochloric acid, reactions 7664-38-2, Orthophosphoric acid, reactions 7697-37-2, Nitric acid, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(in prepn. of **glucan-chitosan** complex)
IT **74902-56-0P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of **glucan-chitosan** complex)
IT 1310-73-2, Sodium hydroxide, reactions **1398-61-4, Chitin**
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of **glucan-chitosan** complex)
IT **74902-56-0P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of **glucan-chitosan** complex)
RN 74902-56-0 HCAPLUS
CN Chitosan, compd. with D-glucan (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 9012-76-4
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 9012-72-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT **1398-61-4, Chitin**
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of **glucan-chitosan** complex)
RN 1398-61-4 HCAPLUS
CN Chitin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L86 ANSWER 26 OF 32 HCAPLUS COPYRIGHT 2003 ACS
AN 1996:210082 HCAPLUS
DN 124:279181
TI Use of neutral soluble glucan preparations to stimulate platelet production
IN Jamas, Spiros; Easson, D. Davidson, Jr.; Ostroff, Gary R.
PA Alpha-Beta Technology, Inc., USA
SO U.S., 20 pp., Cont.-in-part of U.S. Ser. No. 934,015.
CODEN: USXXAM
DT Patent
LA English
IC ICM A61K031-715
ICS C07H001-00; C07H003-00
NCL 514054000

CC 1-8 (**Pharmacology**)
FAN.CNT 4

	PATENT NO.	KIND	DATE		APPLICATION NO.	DATE	
PI	US 5488040	A	19960130		US 1993-60418	19930511	<--
	WO 9103495	A1	19910321		WO 1990-US5041	19900906	<--
	W: AT, AU, BB, BG, BR, CA, CH, DE, DK, ES, FI, GB, HU, JP, KP, KR, LK, LU, MC, MG, MW, NL, NO, RO, SD, SE, SU, US						
	RW: AT, BE, BF, BJ, CF, CG, CH, CM, DE, DK, ES, FR, GA, GB, IT, LU, ML, MR, NL, SE, SN, TD, TG						
	US 5622939	A	19970422		US 1992-934015	19920821	<--
	US 5849720	A	19981215		US 1995-400488	19950308	<--
	US 5811542	A	19980922		US 1995-432303	19950502	<--
	US 5532223	A	19960702		US 1995-452971	19950530	<--
	US 5633369	A	19970527		US 1995-464528	19950605	<--
	US 5663324	A	19970902		US 1995-464527	19950605	<--
PRAI	US 1989-404738	B2	19890908	<--			
	WO 1990-US5041	A	19900906	<--			
	US 1992-838288	A2	19920305	<--			
	US 1992-855578	B2	19920323	<--			
	US 1992-934015	A2	19920821	<--			
	US 1992-970547	A3	19921102	<--			
	US 1993-60418	A1	19930511	<--			
	US 1994-257062	B1	19940609	<--			
	US 1995-432303	A1	19950502	<--			

AB Neutral sol. .beta.-glucans exert potent and specific hematopoietic and immunol. effects without stimulating the prodn. of certain cytokines. The neutral sol. glucan prepn. has a high affinity for the .beta.-glucan receptor of human monocytes and retains 2 primary biol. (or immunol.) activities, (1) the enhancement of microbicidal activity of phagocytic cells, and (2) monocyte and neutrophil hemopoietic activity. Unlike sol. glucans described in the prior art, these neutral sol. glucans neither induce nor prime IL-1 and TNF prodn. in vitro and in vivo. Safe and efficacious prepns. of neutral sol. glucans can be used in therapeutic and/or prophylactic treatment regimens of humans and animals to enhance their immune response, without stimulating the prodn. of certain biochem. mediators (e.g. IL-1, TNF, and leukotrienes) that can cause detrimental side effects, such as fever and inflammation. Thus, glucan was purified from Saccharomyces cerevisiae by extn. of cellular proteins, nucleic acids, mannans, and polar lipids with 1M NaOH, extn. of glycogen, **chitin**, **chitosan**, and remaining proteins with weak acid (pH 4.5) at 75.degree. followed by 0.1M AcOH, extn. of nonpolar lipids and hydrophobic proteins with iso-PrOH and acetone, and treatment of the residue with 98% HCO2H at 85.degree. to solubilize and partially hydrolyze the .beta.-glucan, which was further purified by ultrafiltration and reannealing. Topical application of a soln. of this glucan promoted wound healing in mice and eliminated exptl. wound infection with Staphylococcus aureus.

ST glucan thrombopoiesis hematopoiesis; yeast glucan immunostimulant; wound healing glucan

IT Saccharomyces cerevisiae
(glucan purifn. from; use of neutral sol. glucan prepns. to stimulate platelet prodn.)

IT Sepsis and Septicemia
(treatment of; use of neutral sol. glucan prepns. to stimulate platelet prodn.)

IT Bactericides, Disinfectants, and Antiseptics
Wound healing promoters
(use of neutral sol. glucan prepns. to stimulate platelet prodn.)

IT Peritoneum
(disease, peritonitis, treatment of; use of neutral sol. glucan prepns. to stimulate platelet prodn.)

IT Receptors

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(glucan, glucan avidity for; use of neutral sol. glucan prepns. to stimulate platelet prodn.)
IT Hematopoiesis
(monocytopoiesis, use of neutral sol. glucan prepns. to stimulate platelet prodn.)
IT Hematopoiesis
(neutropoiesis, use of neutral sol. glucan prepns. to stimulate platelet prodn.)
IT Hematopoiesis
(thrombocytopoiesis, use of neutral sol. glucan prepns. to stimulate platelet prodn.)
IT **9051-97-2P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PUR (Purification or recovery); **THU (Therapeutic use)**; BIOL (Biological study); PREP (Preparation); USES (Uses)
(use of neutral sol. glucan prepns. to stimulate platelet prodn.)
IT **9051-97-2P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PUR (Purification or recovery); **THU (Therapeutic use)**; BIOL (Biological study); PREP (Preparation); USES (Uses)
(use of neutral sol. glucan prepns. to stimulate platelet prodn.)
RN 9051-97-2 HCAPLUS
CN .beta.-D-Glucan, (1.fwdarw.3)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L86 ANSWER 27 OF 32 HCAPLUS COPYRIGHT 2003 ACS
AN 1992:15368 HCAPLUS
DN 116:15368
TI Activation of a limulus coagulation factor G by (**1**.fwdarw.**3**)-.**beta**.-**D-glucans**
AU Tanaka, Shigenori; Aketagawa, Jun; Takahashi, Shoji; Shibata, Yuko; Tsumuraya, Yoichi; Hashimoto, Yohichi
CS Tokyo Res. Inst., Seikagaku Corp., Higashiyamato, 207, Japan
SO Carbohydrate Research (**1991**), 218, 167-74
CODEN: CRBRAT; ISSN: 0008-6215
DT Journal
LA English
CC 1-3 (**Pharmacology**)
AB Various oligo- and polysaccharides differing in sugar compns. and types of linkage were examd. for their ability to activate a limulus coagulation factor G, the first protease in an alternative coagulation cascade of the horseshoe crab, Tachypleus tridentatus, whose amebocytes have originally been known to contain a lipopolysaccharide (LPS)-driven pathway leading to the formation of coagulin gel. Linear and branched (**1** .fwdarw. **3**)-.**beta**.-**D-glucans** and mixed linkage (**1** .fwdarw. **3**), (1 .fwdarw. 4)-.**beta** .-**D-glucans** were found to exhibit the ability to activate factor G at concns. of 10-8-10-10 g/mL as assayed by amidolytic activity of the clotting enzyme. Laminaran oligosaccharides, laminaran dextrins (no.-av. mol. wt. .ltoreq. 5800), and other polysaccharides including CM-cellulose, amylose, starch, D-fructans, .alpha.-L-arabinan, .beta.-D-xylans, (**1** .fwdarw. **3**)-.beta.-D-galactan, water-sol. **chitin** derivs., chondroitin, chondroitin sulfates, hylauronan, keratan sulfate, heparins, heparan sulfate, and LPS's were virtually inactive as activators even at a concn. of 10-7 g/mL. The activating ability increased with increasing no.-av. mol. wt. (6800-216,000) of linear (**1** .fwdarw. **3**)-.**beta** .-**D-glucans**. The apparent activating ability of

gyrophoran, nigeran, and yeast .alpha.-D-mannan was largely abolished by digestion with a highly purified Arthrobacter luteus endo-(1 .fwdarw. 3)-.beta.-D-glucanase, which provided supportive evidence for the activation to be ascribed to contaminating (1 .fwdarw. 3)-.beta.-D-glucan(s). Possible participation of ordered structures of (1 .fwdarw. 3)-.beta.-D-glucans in the activation of factor G is discussed.

ST glucan structure limulus coagulation factorG activating

IT Tachypleus tridentatus
(coagulation factor G of, activation of, by glucans, structure in relation to)

IT Lipopolysaccharides
Oligosaccharides
Polysaccharides, biological studies
RL: BIOL (Biological study)
(limulus coagulation factor G activation by, structure in relation to)

IT Molecular structure-biological activity relationship
(limulus coagulation factor G-activating, of (1 .fwdarw. 3)-glucans)

IT Hemolymph-coagulation factors
RL: PROC (Process)
(G, of Tachypleus tridentatus, activation of, by glucans, structure in relation to)

IT Coagulation
(agents, glucans as, limulus coagulation factor G activation by, structure in relation to)

IT Molecular structure-biological activity relationship
(hemolymph-coagulation factor-activating, of (1 .fwdarw. 3)-glucans)

IT Glycophospholipids
RL: BIOL (Biological study)
(lipid A, limulus coagulation factor G activation by, structure in relation to)

IT 1402-10-4, Lichenan 9004-32-4 9004-54-0, Dextran, biological studies 9004-61-9, Hyaluronic acid 9005-25-8, Starch, biological studies 9005-49-6, Heparin, biological studies 9005-80-5, Inulin 9005-82-7, Amylose 9008-22-4, Laminaran 9008-22-4D, Laminaran, oligosaccharides 9012-72-0D, D-Glucan, derivs. 9013-95-0, Levan 9050-67-3, Sizofiran 9051-83-6 9051-93-8 **9051-97-2D**, (1 .fwdarw. 3)-.beta.-D-Glucan, derivs. 9056-32-0 9056-36-4, Keratosulfate 9057-02-7, Pullulan 9063-63-2 24967-93-9 24967-94-0 25322-46-7 31799-84-5, Nigeran 37339-90-5, Lentinan 39409-36-4, Gyrophoran 39464-87-4, Scleroglucan 51052-65-4, Paramylon 52519-63-8 53238-80-5 54724-00-4, Curdlan 54724-00-4D, Curdlan, degraded derivs. 55965-23-6 70226-44-7, Heparan 85205-13-6, .alpha.-L-Arabinan 100919-14-0 114732-86-4
RL: BIOL (Biological study)
(limulus coagulation factor G activation by, structure in relation to)

IT **9051-97-2D**, (1 .fwdarw. 3)-.beta.-D-Glucan, derivs.
RL: BIOL (Biological study)
(limulus coagulation factor G activation by, structure in relation to)

RN 9051-97-2 HCAPLUS

CN .beta.-D-Glucan, (1.fwdarw.3)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L86 ANSWER 28 OF 32 HCAPLUS COPYRIGHT 2003 ACS

AN 1988:576153 HCAPLUS

DN 109:176153

TI Fractionation structures and antitumor activities of the polysaccharides of Reishi, the fruiting body of Ganoderma lucidum

AU Kishida, Etsu; Okuda, Reiko; Sone, Yoshiaki; Misaki, Akira

CS Osaka City Univ., Osaka, Japan

SO Osaka-shiritsu Daigaku Seikatsukagakubu Kiyo (**1988**), Volume Date 1987, 35, 1-10
CODEN: ODSKDS; ISSN: 0385-8642
DT Journal
LA Japanese
CC 63-4 (**Pharmaceuticals**)
Section cross-reference(s): 11
AB Several branched (**1** .fwdarw. **3**)-.**beta**.-**D-glucans** were obtained from the fruiting body of G. lucidum by successive extns. Methylation and mild Smith degrdn. studies indicated that these glucans contained a backbone of (**1** .fwdarw. **3**)-linked D-glucosyl residues, attached mainly with single D-glucosyl groups at O-6 and also a few short chains of (1 .fwdarw. 4)-linked glucose units at O-2. The DMSO-extd. .**beta**.-**D-glucan** had somewhat longer side chains of (1 .fwdarw. 6)-linked D-glucosyl units than other .**beta**.-**D-glucans**. Degrees of branching of the glucans appeared to differ, depending on the extn. conditions, in the range of **1**:**3** (hot water extd. glucan) to 1:23 (hot alkali extd. glucan). In addn. to the .beta.-glucans, the fruiting body contained water-sol. heteropolysaccharides, comprising D-glucose, D-galactose, D-mannose, D-xylose, D(or L)-arabinose, and L-fructose. The hot alkali and DMSO-extn. residue, probably originating from its innermost core, may be a complex polymer, consisting of **chitin**, .beta.-glucan, and a small proportion of peptides. The hot-water extractable glucan (**1**:**3**) showed relatively high inhibitory activity on the growth of sarcoma 180 solid tumor implanted in mice, by i.p. However, other (**1** .fwdarw. **3**)-.**beta**.-**D-glucans** showed no or lower antitumor activity. Modification of D-glucosyl groups of side chains to polyol groups enhanced significantly its tumor inhibiting activity, thus confirming previous results.
ST Ganoderma fruiting body glucan antitumor; neoplasm inhibitor Reisha glucan; polysaccharide Ganoderma fruiting body antitumor
IT Polysaccharides, biological studies
RL: BIOL (Biological study)
(from Ganoderma lucidum fruiting body, (Reisha), antitumor activity and structure of)
IT Amino acids, biological studies
Carbohydrates and Sugars, biological studies
RL: BIOL (Biological study)
(of Ganoderma lucidum fruiting body (Reisha))
IT Ganoderma lucidum
(polysaccharide in fruiting body of, antitumor activity and structure of)
IT **Pharmaceutical** natural products
RL: PRP (Properties)
(Lingzhi, activity of, toward Sarcoma 180 in mice, beta-glucans in)
IT Neoplasm inhibitors
(sarcoma, beta-glucans of Ganoderma lucidum as)
IT **1398-61-4, Chitin**
RL: BIOL (Biological study)
(from Ganoderma lucidum fruiting body (Reisha))
IT **9051-97-2**, (**1** .fwdarw. **3**)-.**beta**.-**D-Glucan**
RL: BIOL (Biological study)
(from Ganoderma lucidum fruiting body (Reisha), antitumor activity and structure of)
IT **1398-61-4, Chitin**
RL: BIOL (Biological study)
(from Ganoderma lucidum fruiting body (Reisha))
RN 1398-61-4 HCAPLUS
CN Chitin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT **9051-97-2**, (**1** .fwdarw. **3**)-.**beta**.-**D-Glucan**
RL: BIOL (Biological study)
(from Ganoderma lucidum fruiting body (Reisha), antitumor activity and structure of)
RN 9051-97-2 HCAPLUS
CN .beta.-D-Glucan, (1.fwdarw.3)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L86 ANSWER 29 OF 32 HCAPLUS COPYRIGHT 2003 ACS
AN 1987:464716 HCAPLUS
DN 107:64716
TI Studies on the host-mediated antitumor polysaccharides. X. Fractionation, formolysis and antitumor activity of fibrous polysaccharides (noncellulose) from Reishi, the fruiting body of Ganoderma lucidum
AU Mizuno, Takashi; Hazama, Toshihiro
CS Fac. Agric., Shizuoka Univ., Shizuoka, 836, Japan
SO Shizuoka Daigaku Nogakubu Kenkyu Hokoku (**1986**), (36), 77-83
CODEN: SDNKAA; ISSN: 0559-8850
DT Journal
LA Japanese
CC 63-4 (**Pharmaceuticals**)
Section cross-reference(s): **1**, 11
AB Noncellulose fibrous polysaccharides in cultivated Man-nen-take (Reishi), fruiting body of G. lucidum, and their antitumor activity were examd. After extn. with 85% EtOH (80.degree.), H2O (100.degree.), 3% ammonium oxalate (100.degree.) and 5% NaOH (30.degree.), the residue was successively extd. with 5% NaOH contg. 0.1% NaBH4 (80.degree.), 20% NaOH contg. 0.1% NaBH4 (30.degree.) and 5% LiCl soln. in N,N'-dimethylacetamide (70.degree.) to obtain 3 polysaccharide fractions, A, B and C, resp. A And B were sepd. by EtOH and AcOH pptn. and gel filtration using Sepharose CL-4B eluted with 0.8M NaOH to afford 4 .beta.-glucans (I and II from A, and III and IV from B), and a **chitosan** (V) was sepd. from C. I-V were treated with 80% HCO2H at 85.degree. for 20 min to give the corresponding formyl polysaccharides and low-mol. wt. polysaccharides. I-IV were composed of glucose (Glc) as the main sugar and small amt. of uronic acid, xylose (Xyl) and mannose, consisted of .beta.-(1.fwdarw.3)-D-glucan with .beta.-(1.fwdarw.6)-glucosyl branching and had av. mol. wt. 330,000, 60,000, 160,000 and 110,000, resp., but IV lacked Xyl and contained protein (1.2%). V gave mainly glucosamine and a small amt. of Glc by acid hydroysis and was identified as **chitosan** by IR spectra and x-ray anal. II, III, III formate and low-mol. wt. polysaccharides of I-IV demonstrated host-mediated antitumor activity against Sarcoma 180 in mice on i.p. administration at ID50 42.5, 34.1, 70.2, 22.4, 17.0, 32.1 and 25.8 mg/kg, resp.
ST Reishi polysaccharide antitumor; Ganoderma polysaccharide antitumor
IT Polysaccharides, biological studies
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(of Ganoderma lucidum fruit, isolation and antitumor activity of)
IT Ganoderma lucidum
(polysaccharides of, antitumor activity of)
IT Neoplasm inhibitors
(Ganoderma lucidum polysaccharides)
IT **Pharmaceutical** natural products
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(Lingzhi, polysaccharides of, antitumor activity of)
IT **9012-76-4**, **Chitosan 9051-97-2D**, derivs.
RL: BAC (Biological activity or effector, except adverse); BOC (Biological

occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(of Ganoderma lucidum fruit, isolation and antitumor activity of)
IT **9012-76-4, Chitosan 9051-97-2D**, derivs.
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(of Ganoderma lucidum fruit, isolation and antitumor activity of)
RN 9012-76-4 HCAPLUS
CN Chitosan (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9051-97-2 HCAPLUS
CN .beta.-D-Glucan, (1.fwdarw.3)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L86 ANSWER 30 OF 32 HCAPLUS COPYRIGHT 2003 ACS
AN 1987:464715 HCAPLUS
DN 107:64715
TI Studies on the host-mediated antitumor polysaccharides. XI. Fractionation, characterization and formolysis of antitumor fibrous polysaccharides (noncellulose) from Maitake, the fruiting body of Grifola frondosa
AU Mizuno, Takashi; Kawagishi, Hirokazu; Mizuno, Kiyoshi
CS Fac. Agric., Shizuoka Univ., Shizuoka, 836, Japan
SO Shizuoka Daigaku Nogakubu Kenkyu Hokoku (**1986**), (36), 85-91
CODEN: SDNKAA; ISSN: 0559-8850
DT Journal
LA Japanese
CC 63-4 (**Pharmaceuticals**)
Section cross-reference(s): **1**, 11
AB Noncellulose fibrous .beta.-glycan in cultivated Maitake, fruiting body of G. frondosa, and their antitumor activity were examd. After extn. with 85% EtOH (80.degree.), H2O (100.degree.), 3% ammonium oxalate (100.degree.) and 5% NaOH (30.degree.), the residue was extd. with 5% NaOH contg. 0.1% NaBH4 (80.degree.), 20% NaOH contg. 0.1% NaH4 (30.degree.) and 5% LiCl soln. in N,N'-dimethylacetamide (70.degree.) to obtain polysaccharide fractions, A, B and C, resp., however, no material was extd. in B. AcOH and EtOH pptn. of A gave two .beta.-glucans (I and II, resp.), and gel-filtration of C using Sepharose CL-4B eluted with 0.8M NaOH gave a **chitosan** (III). I-III were treated with 80% formic acid at 85.degree. for 40-60 min to afford corresponding formyl polysaccharides and low-mol. wt. polysaccharides. I and II were composed of glucose (Glc) as the main sugar and small amt. of xylose and fucose, consisted of .beta.-(1.fwdarw.3)-D-glucan branched with .beta.-(1.fwdarw.6)-linkage with 4 Glc residues and av. chain length of 8 and had av. mol. wt. 750,000 and 430,000, resp. III gave mainly glucosamine (95.4%) and a small amt. of Glc by acid hydrolysis and was identified as **chitosan** by IR spectra and x-ray anal. II and low-mol. wt. polysaccharides of I and II demonstrated host-mediated antitumor activity against Sarcoma 180 in mice on i.p. administration with ID50 48.5, 40.1 and 18.0 mg/kg, resp.
ST Maitake polysaccharide antitumor; Grifola polysaccharide antitumor
IT Polysaccharides, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(of Grifola frondosa fruit, antitumor activity of)
IT Grifola frondosa
(polysaccharides of, extn. and antitumor activity of)
IT Neoplasm inhibitors
(Grifola frondosa polysaccharides)
IT **9012-76-4, Chitosan 9051-97-2D**, derivs.

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(of Grifola frondosa fruit, antitumor activity of)
IT **9012-76-4, Chitosan 9051-97-2D**, derivs.
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(of Grifola frondosa fruit, antitumor activity of)
RN 9012-76-4 HCAPLUS
CN Chitosan (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9051-97-2 HCAPLUS
CN .beta.-D-Glucan, (1.fwdarw.3)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L86 ANSWER 31 OF 32 HCAPLUS COPYRIGHT 2003 ACS
AN 1987:457380 HCAPLUS
DN 107:57380
TI **Chitosan-glucan** as a flocculant for microalgal suspensions - effect of deacetylation temperature and **chitosan** content
AU Benderliev, K.; Ivanova, N.
CS Sect. Exp. Algol., Inst. Plant Physiol., Sofia, 1113, Bulg.
SO Khidrobiologiya (**1987**), 29, 37-40
CODEN: KHIDD9; ISSN: 0324-0924
DT Journal
LA English
CC 16-4 (Fermentation and Bioindustrial Chemistry)
AB **Chitosan-glucan** was isolated from mycelial mats of Aspergillus niger as an alternative to **chitosan** isolation from crab and shrimp shells. Low-temp. (80.degree.) deacetylation of the fully deproteinized mycelial particles produced higher yield of **chitosan -glucan** (65-69%) with high **chitosan** content (64-76%) than high-temp. deacetylation (128.degree.). The product is used as a flocculant for Scenedesmus acutus suspension, and may have a real potential for solving some problems in algal harvesting.
ST **chitosan glucan** prepn Aspergillus deacetylation temp; Scenedesmus flocculant **chitosan glucan**; algae flocculation **chitosan glucan**
IT Aspergillus niger
(**chitosan-glucan** prepn. from, by deacetylation of mycelial mats, temp. effect on)
IT Flocculating agents
(**chitosan-glucan**, from Aspergillus niger)
IT Scenedesmus acutus
(flocculation and sepn. of, by **chitosan-glucan** from Aspergillus niger)
IT Heat, biological effects
(on deacetylation of Aspergillus niger mycelial mats, for prepn. of **chitosan-glucan**)
IT **74902-56-0P**
RL: PREP (Preparation)
(prepn. of, from Aspergillus niger by deacetylation of mycelial mats, temp. effect on)
IT **74902-56-0P**
RL: PREP (Preparation)
(prepn. of, from Aspergillus niger by deacetylation of mycelial mats, temp. effect on)
RN 74902-56-0 HCAPLUS
CN Chitosan, compd. with D-glucan (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 9012-76-4
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 9012-72-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L86 ANSWER 32 OF 32 HCAPLUS COPYRIGHT 2003 ACS
AN 1980:537329 HCAPLUS
DN 93:137329
TI Chelating, film-forming, and coagulating ability of the **chitosan -glucan** complex from Aspergillus niger industrial wastes
AU Muzzarelli, Riccardo A. A.; Tanfani, Fabio; Scarpini, Gianfranco
CS Fac. Med., Univ. Ancona, Ancona, I-60100, Italy
SO Biotechnology and Bioengineering (**1980**), 22(4), 885-96
CODEN: BIBIAU; ISSN: 0006-3592
DT Journal
LA English
CC 60-2 (Sewage and Wastes)
AB Waste mycelia of Aspergillus niger from a citric acid prodn. plant are simply treated with boiling 30-40% NaOH aq. solns. for 4-6 h to obtain the insol. **chitosan-glucan** (I) [**74902-56-0**] complex whose IR, ESR, and x-ray diffraction spectra are reported. A no. of transition- and post-transition-metal ions are chelated and collected by I with higher yields than by animal **chitosan**. Immediate flocculation occurs upon mixing I dispersions with alginate and polymolybdate solns. Membranes are also obtained from I dispersions in acetic acid or in chloral and DMF mixts.
ST **chitosan glucan** coagulation metal wastewater
IT Transition metals, uses and miscellaneous
RL: REM (Removal or disposal); PROC (Process)
(removal of, from wastewaters, by **chitosan-glucan** coagulation)
IT Wastewater treatment
(coagulation, by **chitosan-glucan** complex, transition metals removal by)
IT **74902-56-0**
RL: PROC (Process)
(coagulation by, for transition metal removal from wastewaters)
IT 7439-92-1, uses and miscellaneous 7439-96-5, uses and miscellaneous
7440-02-0, uses and miscellaneous 7440-43-9, uses and miscellaneous
7440-47-3, uses and miscellaneous 7440-48-4, uses and miscellaneous
7440-50-8, uses and miscellaneous 7440-66-6, uses and miscellaneous
RL: REM (Removal or disposal); PROC (Process)
(removal of, from wastewaters, by **chitosan-glucan** coagulation)
IT **74902-56-0**
RL: PROC (Process)
(coagulation by, for transition metal removal from wastewaters)
RN 74902-56-0 HCAPLUS
CN Chitosan, compd. with D-glucan (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 9012-76-4
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 9012-72-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

=> d l85 all hitstr tot

L85 ANSWER 1 OF 10 HCAPLUS COPYRIGHT 2003 ACS
AN 2003:117676 HCAPLUS
TI Endovascular prosthesis coated with a functionalized dextran derivative
IN Lefranc, Olivier; Avramoglou, Thierry; Jozefonvicz, Jacqueline; Darnis, Thierry; Therin, Michel
PA Sofradim Productions, Fr.
SO PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DT Patent
LA French
IC A61L031-04; A61L027-20; A61L033-08
CC 63-7 (**Pharmaceuticals**)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003011355	A1	20030213	WO 2002-FR2722	20020729
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	FR 2827798	A1	20030131	FR 2001-10199	20010727
	FR 2827799	A1	20030131	FR 2001-13540	20011019
PRAI	FR 2001-10199	A	20010727		
	FR 2001-13540	A	20011019		

AB The invention concerns a metal object for medical or surgical use, such as a prosthesis, for example an endovascular prosthesis (called stent) for percutaneous transluminal coronary angioplasty, comprising a metal substrate whereof the surface is coated partly at least with a polysaccharide compd. The invention is characterized in that the polysaccharide compd. is covalently bound, via a plurality of grafting arms, comprising each at least a silane unit, bound on one side to the metal substrate by an -O- metal bond, and on the other side, directly or indirectly, by a covalent -NH- bond, with the polysaccharide compd.
ST endovascular prosthesis coating silane dextran deriv
IT Blood vessel
(artificial; endovascular prosthesis coated with functionalized dextran deriv.)
IT Artery

(coronary, angioplasty; endovascular prosthesis coated with functionalized dextran deriv.)
IT Surfactants
(endovascular prosthesis coated with functionalized dextran deriv.)
IT Metals
RL: DEV (Device component use); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(endovascular prosthesis coated with functionalized dextran deriv.)
IT Alcohols
RL: NUU (Other use, unclassified); USES (Uses)
(endovascular prosthesis coated with functionalized dextran deriv.)
IT Polysaccharides
RL: DEV (Device component use); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(reaction products with silanes; endovascular prosthesis coated with functionalized dextran deriv.)
IT Medical goods
(stents; endovascular prosthesis coated with functionalized dextran deriv.)
IT 106-89-8D, reaction products with polysaccharides and silanes 123-56-8D, Succinimide, reaction products with polysaccharides and silanes 151-51-9D, Carbodiimide, reaction products with polysaccharides and silanes **1398-61-4D, Chitin**, reaction products with silanes 1464-53-5D, reaction products with polysaccharides 4444-73-9D, reaction products with polysaccharides 6382-82-7D, reaction products with polysaccharides 9000-69-5D, Pectin, reaction products with silanes 9004-34-6D, Cellulose, reaction products with silanes 9004-54-0D, Dextran, reaction products with silanes 9005-25-8D, Starch, reaction products with silanes 9005-79-2D, Glycogen, reaction products with silanes **9012-76-4D, Chitosan**, reaction products with silanes 9014-63-5D, Xylan, reaction products with silanes **9051-97-2D**, reaction products with silanes 9057-02-7D, Pullulan, reaction products with silanes 11078-27-6D, Arabinan, reaction products with silanes 11134-23-9, inox 316l 13139-70-3D, Dimethyladipimidate, reaction products with polysaccharides and silanes 17887-09-1D, 3-Aminopropyl triethylsilane, reaction products with polysaccharides 37361-00-5D, reaction products with silanes 51248-97-6D, Epoxirane, reaction products with polysaccharides 64612-25-5D, Fucan, reaction products with silanes
RL: DEV (Device component use); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(endovascular prosthesis coated with functionalized dextran deriv.)
IT 67-64-1, Acetone
RL: NUU (Other use, unclassified); USES (Uses)
(endovascular prosthesis coated with functionalized dextran deriv.)
IT 7647-01-0, Hydrochloric acid 7664-93-9, Sulfuric acid 7697-37-2, Nitric acid 7778-50-9, Potassium dichromate 12018-01-8, Chromium oxide
RL: RCT (Reactant); RACT (Reactant or reagent)
(endovascular prosthesis coated with functionalized dextran deriv.)
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
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(2) Polybiomed Limited; GB 2325934 A 1998 HCAPLUS
(3) Univ Pennsylvania; WO 9309790 A 1993 HCAPLUS
(4) Yamasoe, K; US 4908075 A 1990 HCAPLUS
IT **1398-61-4D, Chitin**, reaction products with silanes
9012-76-4D, Chitosan, reaction products with silanes
9051-97-2D, reaction products with silanes
RL: DEV (Device component use); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(endovascular prosthesis coated with functionalized dextran deriv.)
RN 1398-61-4 HCAPLUS
CN Chitin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9012-76-4 HCAPLUS
CN Chitosan (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9051-97-2 HCAPLUS
CN .beta.-D-Glucan, (1.fwdarw.3)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L85 ANSWER 2 OF 10 HCAPLUS COPYRIGHT 2003 ACS
AN 2003:78033 HCAPLUS
TI Natural polymers for healing wounds
AU Kennedy, John F.; Knill, Charles J.; Thorley, Michael
CS Birmingham Carbohydrate & Protein Technology Group, Chembiotech Laboratories, University of Birmingham Research Park, Birmingham, B15 2SQ, UK
SO Recent Advances in Environmentally Compatible Polymers, International Cellucon Conference, 11th, Tsukuba, Japan, Mar. 24-26, 1999 (2001), Meeting Date 1999, 97-104. Editor(s): Kennedy, John F. Publisher: Woodhead Publishing Ltd., Cambridge, UK.
CODEN: 69DMMW; ISBN: 1-85573-545-8
DT Conference
LA English
CC 63 (**Pharmaceuticals**)
AB Some carbohydrate polymers have properties making them suitable for application as wound management aids. A variety of neutral (e.g. cellulose, dextran, & (**1**.fwdarw.**3**)-.**beta**.-**D-glucans**), basic (e.g. **chitin** & **chitosan**), acidic (e.g. alginic acid & hyaluronic acid), and sulfated polysaccharides (e.g. heparin, chondroitin, dermatan & keratan sulfates), have been the focus of interest with respect to biomedical/wound care applications. Recent investigations have also examd. more unusual complex heteropolysaccharides, isolated from plant and microbial sources, which possess potentially useful biol. and/or physicochem. characteristics with respect to wound care applications. A review of the function and requirements of wound management aids, their phys. forms, and the structural features of the polysaccharides that are commonly used for their prepn., is presented, along with a brief overview of selected com. available products (specifically hydrogels).
RE.CNT 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
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L85 ANSWER 3 OF 10 HCAPLUS COPYRIGHT 2003 ACS
AN 2003:70531 HCAPLUS
TI Use of polysaccharide fibres for modern wound dressings
AU Ghosh, S.; Jassal, M.
CS Department of Textile Technology, Indian Institute of Technology, New Delhi, 110 016, India
SO Indian Journal of Fibre & Textile Research (2002), 27(4), 434-450
CODEN: IJFRET; ISSN: 0971-0426
PB National Institute of Science Communication
DT Journal
LA English
CC 63 (**Pharmaceuticals**)
AB Polysaccharide fibers like alginate, **chitin**, **chitosan**, modified cellulosic fibers, dextran, hyaluronate, pectin and (**1-3**)**.beta.-D-glucans** are being used for modern wound dressing. This paper presents an overview of wound healing mechanism and prepn. and application of above biopolymeric fibers in the highly specialized biomedical field of wound management.
RE.CNT 164 THERE ARE 164 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

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L85 ANSWER 4 OF 10 HCAPLUS COPYRIGHT 2003 ACS
AN 2003:6313 HCAPLUS
DN 138:69750
TI Anti-fungal mechanisms of micafungin: enzymological and morphological studies of micafungin action against Candida albicans and Aspergillus fumigatus
AU Yamaguchi, Hideyo; Nishiyama, Yayoi; Uchida, Katsuhisa; Hatano, Kazuo; Morishita, Yoshihiko; Nakai, Toru; Ikeda, Fumiaki; Mutoh, Seitaro
CS Institute of Medical Mycology, Teikyo University, Japan
SO Nippon Kagaku Ryoho Gakkai Zasshi (2002), 50(Suppl. 1), 20-29
CODEN: NKRZE5; ISSN: 1340-7007
PB Nippon Kagaku Ryoho Gakkai
DT Journal
LA Japanese
CC 10-5 (Microbial, Algal, and Fungal Biochemistry)
AB This report describes the anti-fungal mechanism of action of micafungin (MCFG) against Candida albicans and Aspergillus fumigatus using enzymol. and morphol. techniques. MCFG inhibits **1,3-beta.-D-glucan** synthesis derived from C. albicans ATCC 90028 and A. fumigatus TIMM 0063 in a concn. dependent manner. Inhibition kinetics between substrate and inhibitor were non-competitive. MCFG is not active against **chitin** or mannan synthesis derived from C. albicans ATCC 90028 with both having a 50% inhibitory concn. (IC50) over 100 .mu.g/mL. MCFG is also not active against DNA, RNA or protein synthesis in C. albicans ATCC 90028 (IC50s were both over 100 .mu.g/mL). On differential-interference contrast micrographs and transmission electron micrographs of drug-challenged cells, abnormal cell wall structures were obsd. These abnormalities included: thin cell walls, abnormal septum formation, split inhibition of daughter cells and lysis of the C. albicans ATCC 90028 yeast cells;

inhibition of pseudohyphae extensions, swelling and abnormal extension at the tips of pseudohyphae in C. albicans FP 633; and inhibition of germination and hyphae extension, swelling and abnormal extension at the tip cells of hyphae in A. fumigatus TIMM 0063. These results suggest that the anti-fungal mechanism of action against C. albicans and A. fumigatus is inhibition of **1,3-.beta.-D-glucan** synthesis.

ST micafungin Candida Aspergillus antifungal mechanism beta glucan synthase

IT Aspergillus fumigatus
Candida albicans
Cell wall
Fungicides
(antifungal mechanism of micafungin against Candida albicans and Aspergillus fumigatus)

IT **1398-61-4, Chitin** 9036-88-8, Mannan 9037-30-3, **1,3-.beta.-D-Glucan** synthase **9051-97-2, 1,3-.beta.-D-Glucan**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(antifungal mechanism of micafungin against Candida albicans and Aspergillus fumigatus)

IT 235114-32-6, Micafungin
RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(antifungal mechanism of micafungin against Candida albicans and Aspergillus fumigatus)

IT **1398-61-4, Chitin 9051-97-2, 1, 3-.beta.-D-Glucan**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(antifungal mechanism of micafungin against Candida albicans and Aspergillus fumigatus)

RN 1398-61-4 HCAPLUS
CN Chitin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9051-97-2 HCAPLUS
CN .beta.-D-Glucan, (1.fwdarw.3)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L85 ANSWER 5 OF 10 HCAPLUS COPYRIGHT 2003 ACS
AN 2001:885743 HCAPLUS
DN 136:616
TI Pharmaceutical composition containing a polymer-phenylalkylcarboxylate salt association or conjugate, conjugate polymers, and use in cancer treatment
IN Avramoglou, Thierry; Bagheri, Rozita; Chaubet, Frederic; Crepin, Michel; Dahri-Correia, Latifa; Dibenedetto, Melanie; Gervelas, Claudia; Huynh, Remi; Jozefonvicz, Jacqueline
PA Biodex, Fr.
SO PCT Int. Appl., 50 pp.
CODEN: PIXXD2
DT Patent
LA French
IC ICM A61K031-19
ICS A61K047-36; C08B037-02; A61K047-48
CC 1-6 (**Pharmacology**)
Section cross-reference(s): 35, **63**

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001091742	A1	20011206	WO 2001-FR1672	20010530
W: CA, JP, US				

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR

FR 2809735 A1 20011207 FR 2000-7117 20000602

PRAI FR 2000-7117 A 20000602

OS MARPAT 136:616

AB The invention discloses a pharmaceutical compn. contg. at least one polymer (e.g. dextran) assocd. or conjugated with at least a phenylalkylcarboxylic acid deriv., polymers conjugated with at least one phenylalkylcarboxylic acid deriv., and their uses in particular in cancer treatment. Conjugate prepn. is described.

ST polymer phenylalkylcarboxylate prepn antitumor

IT Animal cell line
(HUVEC; polymer-phenylalkylcarboxylate salt assocn. or conjugate, prepn., and use in cancer treatment)

IT Antitumor agents
(MCF-7 and MCF-7ras breast cancer cells; polymer-phenylalkylcarboxylate salt assocn. or conjugate, prepn., and use in cancer treatment)

IT Polymers, biological studies
Polysaccharides, biological studies
RL: PAC (Pharmacological activity); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(conjugates; polymer-phenylalkylcarboxylate salt assocn. or conjugate, prepn., and use in cancer treatment)

IT Mitogens
(inhibitors; polymer-phenylalkylcarboxylate salt assocn. or conjugate, prepn., and use in cancer treatment)

IT Antitumor agents
(melanoma, 1205LU cell; polymer-phenylalkylcarboxylate salt assocn. or conjugate, prepn., and use in cancer treatment)

IT Antitumor agents
(metastasis; polymer-phenylalkylcarboxylate salt assocn. or conjugate, prepn., and use in cancer treatment)

IT Mammary gland
(neoplasm, MCF-7 and MCF-7ras cells; polymer-phenylalkylcarboxylate salt assocn. or conjugate, prepn., and use in cancer treatment)

IT Angiogenesis inhibitors
Apoptosis
Cell death
Cytotoxic agents
Cytotoxic agents
Drug delivery systems
(polymer-phenylalkylcarboxylate salt assocn. or conjugate, prepn., and use in cancer treatment)

IT Carboxylic acids, biological studies
RL: PAC (Pharmacological activity); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(polymer-phenylalkylcarboxylate salt assocn. or conjugate, prepn., and use in cancer treatment)

IT Drug interactions
(synergistic; polymer-phenylalkylcarboxylate salt assocn. or conjugate, prepn., and use in cancer treatment)

IT Drug delivery systems
(systemic; polymer-phenylalkylcarboxylate salt assocn. or conjugate, prepn., and use in cancer treatment)

IT 9044-05-7D, N-benzylmethylenecarboxamide deriv., reaction produfts with phenylacetic acid
RL: PAC (Pharmacological activity); RCT (Reactant); **THU (Therapeutic use)**; BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(polymer-phenylalkylcarboxylate salt assocn. or conjugate, prepn., and use in cancer treatment)

IT 114-70-5, Sodium phenylacetate 114-70-5D, Sodium phenylacetate, conjugates with hydroxyl group-contg. polymers 114-84-1D, conjugates

with hydroxyl group-contg. polymers **1398-61-4D, Chitin**
, conjugates with phenylalkylcarboxylate salts 1716-12-7D, Sodium
phenylbutyrate, conjugates with hydroxyl group-contg. polymers
9000-69-5D, Pectin, conjugates with phenylalkylcarboxylate salts
9004-34-6D, Cellulose, conjugates with phenylalkylcarboxylate salts
9004-54-0D, Dextran, conjugates with phenylalkylcarboxylate salts
9005-25-8D, Starch, conjugates with phenylalkylcarboxylate salts
9005-79-2D, Glycogen, conjugates with phenylalkylcarboxylate salts
9012-72-0D, Glucosan, conjugates with phenylalkylcarboxylate salts
9014-63-5D, Xylan, conjugates with phenylalkylcarboxylate salts
11078-27-6D, Arabinan, conjugates with phenylalkylcarboxylate salts
13005-36-2D, Potassium phenylacetate, conjugates with hydroxyl
group-contg. polymers 22889-95-8D, conjugates with hydroxyl group-contg.
polymers 55322-48-0D, conjugates with hydroxyl group-contg. polymers
RL: PAC (Pharmacological activity); **THU (Therapeutic use)**; BIOL
(Biological study); USES (Uses)
(polymer-phenylalkylcarboxylate salt assocn. or conjugate, prepn., and
use in cancer treatment)

IT 103-80-0, Phenylacetyl chloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction; polymer-phenylalkylcarboxylate salt assocn. or conjugate,
prepn., and use in cancer treatment)

IT **9051-97-2D**, conjugates with phenylalkylcarboxylate salts
RL: PAC (Pharmacological activity); **THU (Therapeutic use)**; BIOL
(Biological study); USES (Uses)
(repeating unit, polymer-phenylalkylcarboxylate salt assocn. or
conjugate, prepn., and use in cancer treatment)

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
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V191(5), P1051 HCAPLUS
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IT **1398-61-4D, Chitin**, conjugates with
phenylalkylcarboxylate salts
RL: PAC (Pharmacological activity); **THU (Therapeutic use)**; BIOL
(Biological study); USES (Uses)
(polymer-phenylalkylcarboxylate salt assocn. or conjugate, prepn., and
use in cancer treatment)

RN 1398-61-4 HCAPLUS
CN Chitin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT **9051-97-2D**, conjugates with phenylalkylcarboxylate salts
RL: PAC (Pharmacological activity); **THU (Therapeutic use)**; BIOL
(Biological study); USES (Uses)
(repeating unit, polymer-phenylalkylcarboxylate salt assocn. or
conjugate, prepn., and use in cancer treatment)

RN 9051-97-2 HCAPLUS
CN .beta.-D-Glucan, (1.fwdarw.3)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L85 ANSWER 6 OF 10 HCAPLUS COPYRIGHT 2003 ACS
AN 2001:868272 HCAPLUS
DN 136:11092
TI Contrast agents
IN Klaveness, Jo; Tolleshaug, Helge

PA Nycomed Imaging AS, Norway
SO PCT Int. Appl., 77 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K049-00
ICS A61K049-04; A61K049-06; A61K049-22; A61K051-00
CC 63-5 (**Pharmaceuticals**)
Section cross-reference(s): 8, 9
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001089584	A2	20011129	WO 2001-NO215	20010523
WO 2001089584	A3	20020502		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1283728	A2	20030219	EP 2001-941323	20010523

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

PRAI NO 2000-2644	A	20000523
US 2000-210061P	P	20000607
WO 2001-NO215	W	20010523

AB This invention relates to contrast agents and the use of these contrast agents for diagnosis of diseases in humans and animals based on mapping of metabolic activity. The contrast agents can be used to identify tissue or cells with metabolic activity or enzymic activity deviating from the normal. A contrast agent substrate changes pharmacodynamic and/or pharmacokinetic properties upon a chem. modification from a contrast agent substrate to a contrast agent product in a specific enzymic transformation, thereby detecting areas of disease upon a deviation in the enzyme activity from the normal. Examples showing prepn. of conjugates which are substrates for MMP-7, cathepsin D, esterase, transglutaminase, and caspase-3 are given, as well as methods for prepg. microbubble dispersions. The conjugates are suitable for MRI, PET and scintigraphy.

ST peptide conjugate gadolinium technetium complex microbubble dispersion; MRI PET scintigraphy contrast agent

IT Enzymes, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(DNA helicase; contrast agents as enzyme substrates for detection of changes in enzymic/metabolic activity)

IT Imaging agents
(NMR contrast; contrast agents for detection of diseases assocd. with abnormal metab.)

IT Imaging
(NMR; peptide-conjugated gadolinium and technetium complexes as contrast agents: prepn. and formulation as microbubbles)

IT Imaging
(acoustic; contrast agents for detection of diseases assocd. with abnormal metab.)

IT NMR spectroscopy
(carbon-13; peptide-conjugated gadolinium and technetium complexes as contrast agents: prepn. and formulation as microbubbles)

IT Nervous system
(central, disease; contrast agents for detection of diseases assocd. with abnormal metab.)

IT Biological transport

Membrane, biological
(contrast agents assocd. with changes in permeability or transport)
IT Transport proteins
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(contrast agents assocd. with changes in permeability or transport)
IT Disease, animal
(contrast agents for detection of diseases assocd. with abnormal enzyme activity)
IT Enzymes, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(contrast agents for detection of diseases assocd. with abnormal enzyme activity)
IT Drug delivery systems
Imaging
Infection
Inflammation
Metabolism, animal
Neoplasm
Radiopharmaceuticals
(contrast agents for detection of diseases assocd. with abnormal metab.)
IT Imaging agents
(contrast; contrast agents for detection of diseases assocd. with abnormal metab.)
IT Cardiovascular system
(disease; contrast agents for detection of diseases assocd. with abnormal metab.)
IT NMR spectroscopy
(fluorine-19; peptide-conjugated gadolinium and technetium complexes as contrast agents: prepn. and formulation as microbubbles)
IT Transport proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(glutamate-transporter; contrast agents as enzyme substrates for detection of changes in enzymic/metabolic activity)
IT Drug delivery systems
(microbubbles; peptide-conjugated gadolinium and technetium complexes as contrast agents: prepn. and formulation as microbubbles)
IT Atherosclerosis
(peptide-conjugated gadolinium and technetium complexes as contrast agents for imaging atherosclerotic plaques)
IT Apoptosis
(peptide-conjugated gadolinium and technetium complexes as contrast agents for mapping apoptosis)
IT Drug metabolism
Pharmacokinetics
(peptide-conjugated gadolinium and technetium complexes as contrast agents for mapping drug metab.)
IT Liver
Magnetic relaxation
Spin-lattice relaxation
(peptide-conjugated gadolinium and technetium complexes as contrast agents: T1 relaxation times for liver homogenates)
IT Scintigraphy
(peptide-conjugated gadolinium and technetium complexes as contrast agents: prepn. and formulation as microbubbles)
IT Biological transport
(permeation; contrast agents assocd. with changes in permeability or transport)
IT Sound and Ultrasound
(ultrasound contrast agents for detection of diseases assocd. with abnormal metab.)
IT Imaging

(x-ray; contrast agents for detection of diseases assocd. with abnormal metab.)

IT 9068-38-6
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(HIV; contrast agents as enzyme substrates for detection of changes in enzymic/metabolic activity)

IT 9001-12-1, Collagenase 9001-63-2, Muramidase 9001-66-5, Monoamine oxidase 9001-67-6, Neuraminidase 9001-90-5, Plasmin 9001-92-7, Protease 9002-04-4, Thrombin 9004-02-8, Lipoprotein lipase 9013-05-2, Phosphatase 9015-82-1, Angiotensin-converting enzyme 9026-28-2, RNA replicase 9026-43-1 9027-41-2, Hydrolase 9028-35-7, Hydroxymethylglutaryl-CoA reductase 9030-18-6, **Chitin** synthetase 9033-06-1, Glucosidase 9036-22-0, Tyrosine 3-monooxygenase 9037-30-3, **1,3-.beta.-Glucan** synthase 9054-89-1, Superoxide dismutase 9073-60-3, .beta.-Lactamase 37259-58-8, Serine endopeptidase 39391-18-9, Cyclooxygenase 52350-85-3, Integrase 78990-62-2, Calpain 80043-26-1, Myelin basic protein kinase 80449-01-0, Topoisomerase 105913-11-9, Plasminogen activator 110071-61-9 120178-12-3, Telomerase 125978-95-2, Nitric oxide synthase 131384-38-8 138238-81-0, Endothelin-converting enzyme 361540-77-4, Calcineurin 372092-80-3, Protein kinase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(contrast agents as enzyme substrates for detection of changes in enzymic/metabolic activity)

IT 9025-26-7, Cathepsin D
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(peptide-conjugated gadolinium and technetium complexes as contrast agents: prepn. and formulation as microbubbles)

IT 9013-79-0, Esterase 169592-56-7, Caspase 3
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(peptide-conjugated gadolinium and technetium complexes as contrast agents: prepn. and formulation as microbubbles)

IT 9016-18-6, Carboxylesterase 9074-83-3, Aminopeptidase A 80146-85-6, Transglutaminase 141256-52-2, Matrix metalloproteinase 7 141907-41-7, Matrix metalloproteinase
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); CAT (Catalyst use); BIOL (Biological study); USES (Uses)
(peptide-conjugated gadolinium and technetium complexes as contrast agents: prepn. and formulation as microbubbles)

IT 374804-99-6P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL (Biological study); PREP (Preparation); USES (Uses)
(peptide-conjugated gadolinium and technetium complexes as contrast agents: prepn. and formulation as microbubbles)

IT 9040-48-6, Gelatinase
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(peptide-conjugated gadolinium and technetium complexes as contrast agents: prepn. and formulation as microbubbles)

IT 374804-69-0P 374804-75-8P
RL: BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)
(peptide-conjugated gadolinium and technetium complexes as contrast agents: prepn. and formulation as microbubbles)

IT 4537-78-4, Distearoylphosphatidylglycerol 4539-70-2, Distearoylphosphatidylcholine
RL: MOA (Modifier or additive use); **THU (Therapeutic use)**; BIOL

(Biological study); USES (Uses)
(peptide-conjugated gadolinium and technetium complexes as contrast agents: prepn. and formulation as microbubbles)

IT 374922-44-8P 374922-46-0P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(peptide-conjugated gadolinium and technetium complexes as contrast agents: prepn. and formulation as microbubbles)

IT 112-35-6, Triethyleneglycol monomethyl ether 591-27-5, 3-Hydroxyaniline 622-58-2, p-Tolyl isocyanate 876-08-4, 4-(Chloromethyl)benzoyl chloride 3173-56-6, Benzyl isocyanate 12064-62-9, Gadolinium(III) oxide 15100-75-1 204855-30-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(peptide-conjugated gadolinium and technetium complexes as contrast agents: prepn. and formulation as microbubbles)

IT 374804-71-4P 374804-72-5P 374804-73-6P 374804-74-7P 374804-76-9P 374804-77-0P 374804-78-1P 374804-79-2P 374804-82-7P 374804-84-9P 374804-86-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(peptide-conjugated gadolinium and technetium complexes as contrast agents: prepn. and formulation as microbubbles)

IT 122555-91-3P
RL: RCT (Reactant); SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(peptide-conjugated gadolinium and technetium complexes as contrast agents: prepn. and formulation as microbubbles)

IT 374804-92-9 374804-94-1
RL: RCT (Reactant); **THU (Therapeutic use)**; BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(peptide-conjugated gadolinium and technetium complexes as contrast agents: prepn. and formulation as microbubbles)

IT 374804-80-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(peptide-conjugated gadolinium and technetium complexes as contrast agents: prepn. and formulation as microbubbles)

IT 374804-70-3P
RL: SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL (Biological study); PREP (Preparation); USES (Uses)
(peptide-conjugated gadolinium and technetium complexes as contrast agents: prepn. and formulation as microbubbles)

IT 7440-54-2D, Gadolinium, conjugates of complexes 14133-76-7D, Technetium 99, conjugates of complexes, biological studies 374804-88-3D, gadolinium complex 374804-90-7D, gadolinium complex 374804-91-8D, gadolinium complex 374804-96-3 374804-97-4D, gadolinium and technetium complex 374922-48-2 374922-50-6 374922-52-8 374922-54-0
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(peptide-conjugated gadolinium and technetium complexes as contrast agents: prepn. and formulation as microbubbles)

L85 ANSWER 7 OF 10 HCAPLUS COPYRIGHT 2003 ACS
AN 2001:788877 HCAPLUS
DN 135:317708
TI Modification of protein and carbohydrate
IN Motegi, Kazuyuki; Sugiyama, Hiroshi
PA Asahi Denka Kogyo K. K., Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C07K014-47
ICS A23J003-04; A23J003-08; A23J003-10; A23J003-18; A23L001-305; C07K014-415; C07K014-465; A61K031-70; A61K038-00

CC 17-7 (Food and Feed Chemistry)
Section cross-reference(s): 6, **62**, **63**

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001302694	A2	20011031	JP 2000-114165	20000414
PRAI	JP 2000-114165		20000414		

AB Protein and carbohydrate are dispersed without dissolving in a solvent, and heated with agitation to prep. modified protein with improved thermostability, emulsification activity, and soly. Prepn. of modified protein from casein and guar gum hydrolyzate in ethanol was shown. The method is low in cost, safe, and useful for com. manuf. of modified protein.

ST protein modification carbohydrate heating agitation

IT Phosphopeptides
RL: FFD (Food or feed use); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(casein CPP-III; modification of protein and carbohydrate)

IT Collagens, biological studies
RL: FFD (Food or feed use); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(hydrolyzate; modification of protein and carbohydrate)

IT **Cosmetics**
Drugs
Egg white
Egg yolk
Food
Food solubility
Heating
Temperature
Thermal stability
(modification of protein and carbohydrate)

IT Alcohols, biological studies
Lipids, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(modification of protein and carbohydrate)

IT Carbohydrates, biological studies
Proteins, general, biological studies
RL: FFD (Food or feed use); PRP (Properties); BIOL (Biological study); USES (Uses)
(modification of protein and carbohydrate)

IT Caseins, biological studies
RL: FFD (Food or feed use); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(modification of protein and carbohydrate)

IT Gliadins
RL: FFD (Food or feed use); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(modification of protein and carbohydrate)

IT Glutens
RL: FFD (Food or feed use); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(modification of protein and carbohydrate)

IT Fats and Glyceridic oils, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(vegetable, soybean; modification of protein and carbohydrate)

IT Proteins, specific or class
RL: FFD (Food or feed use); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(whey; modification of protein and carbohydrate)

IT 9000-30-0, Guar gum

RL: FFD (Food or feed use); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(hydrolyzate; modification of protein and carbohydrate)

IT 56-81-5, Glycerol, biological studies 64-17-5, Ethanol, biological studies 110-54-3, Hexane, biological studies 7732-18-5, Water, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(modification of protein and carbohydrate)

IT 3671-99-6 9000-01-5, Gum arabic 9000-07-1, Carrageenan 9002-18-0, Agar agar 9004-53-9, Dextrin **9012-76-4, Chitosan** **9051-97-2, 1,3-.beta.-Glucan** 37294-28-3, Xyloglucan
RL: FFD (Food or feed use); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(modification of protein and carbohydrate)

IT **9012-76-4, Chitosan** **9051-97-2, 1,3-.beta.-Glucan**
RL: FFD (Food or feed use); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(modification of protein and carbohydrate)

RN 9012-76-4 HCAPLUS
CN Chitosan (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9051-97-2 HCAPLUS
CN .beta.-D-Glucan, (1.fwdarw.3)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L85 ANSWER 8 OF 10 HCAPLUS COPYRIGHT 2003 ACS
AN 2001:775398 HCAPLUS
DN 136:50356
TI Penetration of radionuclides across the skin: Glucans as possible inhibitors of metals permeation
AU Kassai, Z.; Bauerova, K.; Koprda, V.; Sandula, J.; Harangozo, M.
CS Faculty of Chemical Technology, Department of Environmental Technology, Slovak University of Technology, Bratislava, 842 27, Slovakia
SO Journal of Radioanalytical and Nuclear Chemistry (2001), 250(1), 189-191
CODEN: JRNCDM; ISSN: 0236-5731
PB Kluwer Academic Publishers
DT Journal
LA English
CC 8-9 (Radiation Biochemistry)
Section cross-reference(s): 4
AB Penetration of Cs+, Cd2+ and Co2+ ions across an animal model of human skin (five-day-old rat skin) was studied in vitro in vertical diffusion cells. Glucans (fibrillary beta-glucan, carboxymethyl-**chitosan** -glucan) were used as permeation inhibitors with the aim to reduce the potential toxicol. effect of these metals in humans. Of the glucans studied, carboxymethyl-**chitosan**-glucan was the more effective inhibitor. The dose-dependency of this effect was demonstrated.
ST skin permeation radionuclide glucan inhibition
IT **Skin**
(glucans as potential inhibitors of radionuclide permeation across skin)
IT Radionuclides
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(glucans as potential inhibitors of radionuclide permeation across skin)
IT Biological transport
(permeation; glucans as potential inhibitors of radionuclide permeation across skin)

IT 18459-37-5, Cesium ion, biological studies 22537-48-0, Cadmium ion, biological studies 22541-53-3, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(glucans as potential inhibitors of radionuclide permeation across skin)
IT **1398-61-4D, Chitin**, glucan conjugate 9012-72-0, Glucan 9041-22-9, .beta.-Glucan **9051-97-2D, chitin**-modified 83512-85-0D, Carboxymethyl **chitosan**, glucan conjugate
RL: PAC (Pharmacological activity); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(glucans as potential inhibitors of radionuclide permeation across skin)
RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
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(8) Western, R; Clin Pharmacokin 1992, V23, P253
IT **1398-61-4D, Chitin**, glucan conjugate **9051-97-2D, chitin**-modified
RL: PAC (Pharmacological activity); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(glucans as potential inhibitors of radionuclide permeation across skin)
RN 1398-61-4 HCAPLUS
CN Chitin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9051-97-2 HCAPLUS
CN .beta.-D-Glucan, (1.fwdarw.3)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L85 ANSWER 9 OF 10 HCAPLUS COPYRIGHT 2003 ACS
AN 2001:729695 HCAPLUS
DN 135:277745
TI Proliposomes containing phospholipids and biol. active materials
IN Garces Garces, Josep; Vilado Petit, Josep-Lluis
PA Primacare S.A., Spain
SO Eur. Pat. Appl., 20 pp.
CODEN: EPXXDW
DT Patent
LA German
IC ICM A61K007-00
ICS A61K007-48
CC 62-4 (Essential Oils and **Cosmetics**)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1138313	A1	20011004	EP 2000-106607	20000328
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	WO 2001072264	A2	20011004	WO 2001-EP3082	20010317
	WO 2001072264	A3	20020214		
	W: AU, JP, KR, US				
PRAI	EP 2000-106607	A	20000328		

AB Proliposome-encapsulated **cosmetic** formulations contain lecithins and/or phospholipids, and biol. active materials. Thus, a formulation contained Emulgade SE 5.0, Cetiol SQ 3.0, Cetiol OE 3.0, Cetiol V 3.0,

Nutrilan Elastin E20 2.0, Highcareen GS 1.0, Hydagen CMF 1.0, and glycerin 3.0%.
ST proliposome **cosmetic** phospholipid biol active
IT Alcohols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(C1-4; proliposomes contg. phospholipids and biol. active materials)
IT Carboxylic acids, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(hydroxy; proliposomes contg. phospholipids and biol. active materials)
IT **Cosmetics**
(**liposomes**; proliposomes contg. phospholipids and biol. active materials)
IT Plant (Embryophyta)
(medicinal, exts.; proliposomes contg. phospholipids and biol. active materials)
IT Alcohols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(polyhydric; proliposomes contg. phospholipids and biol. active materials)
IT Emulsifying agents
(proliposomes contg. phospholipids and biol. active materials)
IT Amino acids, biological studies
Ceramides
DNA
Essential oils
Lecithins
Phospholipids, biological studies
Tocopherols
Vitamins
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(proliposomes contg. phospholipids and biol. active materials)
IT 50-81-7, Ascorbic acid, biological studies 56-81-5, Glycerin, biological studies 57-55-6, Propylene glycol, biological studies 58-95-7, Tocopherol acetate 64-17-5, Ethanol, biological studies 68-26-8, Retinol 81-13-0, Panthenol 97-59-6, Allantoin 107-21-1, Ethylene glycol, biological studies 110-63-4, Butylene glycol, biological studies 515-69-5, Bisabolol **9012-76-4**, **Chitosan** **9051-97-2**, Highcareen GS 66267-50-3, Hydagen CMF 74563-64-7, Phytantriol 113973-04-9
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(proliposomes contg. phospholipids and biol. active materials)
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
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(2) Astra Ab; WO 9900111 A 1999 HCAPLUS
(3) Ganter, S; US 5635206 A 1997 HCAPLUS
(4) Payne, N; J PHARMACEUTICAL SCIENCES 1986, 4
IT **9012-76-4**, **Chitosan** **9051-97-2**, Highcareen GS
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(proliposomes contg. phospholipids and biol. active materials)
RN 9012-76-4 HCAPLUS
CN Chitosan (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9051-97-2 HCAPLUS
CN .beta.-D-Glucan, (1.fwdarw.3)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L85 ANSWER 10 OF 10 HCAPLUS COPYRIGHT 2003 ACS
AN 2001:90281 HCAPLUS
DN 134:260791
TI Update on antifungals targeted to the cell wall: focus on **.beta.-1,3-glucan** synthase inhibitors
AU Georgopapadakou, Nafsika H.
CS Experimental Station, DuPont Pharmaceuticals, Wilmington, USA
SO Expert Opinion on Investigational Drugs (2001), 10(2), 269-280
CODEN: EOIDER; ISSN: 1354-3784
PB Ashley Publications Ltd.
DT Journal; General Review
LA English
CC 1-0 (**Pharmacology**)
AB A review with 127 refs. Currently available antifungal drugs for serious infections are either fungistatic and vulnerable to resistance (azoles) or fungicidal but toxic to the host (polyenes). Cell wall-acting antifungals are inherently selective and fungicidal, features that make them particularly attractive for clin. development. Three classes of such compds., targeted resp. to **chitin** synthase (nikkomycins), **.beta.-1,3-glucan** synthase (echinocandins) and mannoproteins (pradimicins/benanomicins), have entered clin. development. While nikkomycins and pradimicins/benanomicins are no longer in development, echinocandins have emerged as potentially clin. useful and three compds., caspofungin (MK-991, L-743,872), micafungin (FK-463) and anidulafungin (LY-303366) are in late clin. development (Phase II and III).
ST review glucan synthase inhibitor antifungal
IT Cell wall
Fungicides
(antifungals targeted to cell wall: **.beta.-1,3-glucan** synthase inhibitors)
IT 9037-30-3, **.beta.-1,3-Glucan** synthase
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(antifungals targeted to cell wall: **.beta.-1,3-glucan** synthase inhibitors)
RE.CNT 127 THERE ARE 127 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
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=> d l119 all abeq tech abex tot

L119 ANSWER 1 OF 12  WPIX (C) 2003 THOMSON DERWENT
AN   2002-314931 [35]   WPIX
DNC  C2002-091544
TI   Preparation of konjac glucomannan gel or sponge, for e.g. the food
     industry, comprises making a sol by dispersing the gum in water, removing
     insoluble particulates, recovering the gum, drying, grinding to powder and
     dissolving in water.
DC   B04 D16
IN   BLAKE, N A; RENN, D W
PA   (BLAK-I) BLAKE N A; (RENN-I) RENN D W; (MARI-N) MARINE BIOPRODUCTS INT
CYC  100
PI   US 2002019447 A1 20020214 (200235)*      31p    B01F003-12
     WO 2002072687 A2 20020919 (200263)  EN          C08L005-14
        RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
            NL OA PT SD SE SL SZ TR TZ UG ZM ZW
         W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK
            DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR
            KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT
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RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

ADT US 2002019447 A1 CIP of US 2000-609870 20000703, US 2001-804402 20010313; WO 2002072687 A2 WO 2002-CA334 20020311

PRAI US 2001-804402 20010313; US 2000-609870 20000703

IC ICM B01F003-12; C08L005-14
ICS **A61K009-48**; **A61K047-36**; C08J005-00; C08J009-00

AB US2002019447 A UPAB: 20020603
NOVELTY - Production of a clarified konjac glucomannan (A) gel or sponge, clarified konjac glucomannan or clarified aloe mannan (B) film, foam or capsule by soaking dispersed (A) or (B) in water, stirring to obtain a homogenous particulate containing sol, removing insoluble particulates, recovering (A) or (B), drying and grinding to a powder, dissolving the powder in water and forming into a required form.

DETAILED DESCRIPTION - Production of a clarified konjac glucomannan (A) gel or sponge, or a clarified aloe mannan (B) film, foam, capsule, gel or sponge by:

(a) soaking dispersed (A) or (B) in water, stirring the hydrated (A) or (B) until a homogenous particulate containing sol is obtained, removing insoluble particulates, recovering clarified (A) or (B) from the filtrate, drying and grinding to a powder, and optionally dissolving the powder in water to form a sol; where

(b) preparation of (A) gel involves adding a suitable alkaline agent to a sol of the clarified (A) of step (a) to deacetylate the sol to form the gel;

(c) preparation of (A) flexible water soluble film involves adding glycerol or other plasticizer to a sol of the clarified (A) or (B) of step (a), dissolving (A) or (B), glycerol or other plasticizer mixture, casting the mixture as a film, and drying the film;

(d) preparation of (A) flexible hot water soluble film involves adding xanthan and glycerol or other plasticizer to the clarified sol of (A) or (B) of step (a) to form a mixture, dissolving the mixture, casting the mixture as a film, cooling the film to a gel and drying the gel to form the film;

(e) preparation of (A) flexible water-insoluble film involves adding glycerol or other plasticizer and an alkaline agent to the clarified sol of (A) of step (a) to form a mixture, dissolving the mixture, casting the mixture as a sol, heating the sol to deacetylate the mixture to form a gel and drying the gel to form the film;

(f) preparation of (A) rigid water soluble film involves step (c) but omitting the glycerol or other plasticizer;

(g) preparation of (A) rigid hot water soluble film involves step (d) but omitting the glycerol or other plasticizer;

(h) preparation of (A) rigid water insoluble film involves step (e) but omitting the glycerol or other plasticizer;

(i) preparation of (A) in the form of the water-inhibiting film that forms an amorphous gel involves adding an appropriate amount of glycerol and borax to the clarified (A) or (B) of step (a), dissolving the mixture, casting the mixture as a film and drying the film;

(j) preparation of (A) stabilized foam involves adding a foaming agent and glycerol to the clarified sol of (A) step (a) to form a mixture, aerating the mixture to produce a foam, adding an alkaline agent to the foam, heating the foam to set the foam and drying the foam;

(k) preparation of (A) flexible rubbery type foam involves adding a foaming agent, clarified xanthan and glycerol or other plasticizer to the clarified sol of (A) or (B) in step (a) to form a mixture, heating the mixture to form a sol, aerating the mixture to produce a foam, cooling the foam to set the foam, and drying the foam;

(l) when a sponge cloth-like foam is required, following step (j), but before drying the foam, freezing and thawing the foam, squeezing the foam, rinsing the foam, soaking the foam in isopropyl alcohol and drying the foam;

(m) preparation of (A) flexible, dry foam which rehydrates to form an

amorphous gel involves adding a detergent and glycerin or other plasticizer to the sol of (A) of step (a) to form a mixture, aerating the mixture to form a foam, adding a borate to the foam, aerating the foam further, cooling and then drying the foam;

(n) preparation of (A) firm water absorbent sponge involves adding an alkaline agent to a sol of the clarified (A) of step (a) to form a mixture, heating the mixture until a gel is formed, freezing the gelled mixture, thawing the gelled mixture, and drying the gelled mixture; and

(o) preparation of (A) flexible water absorbent sponge involves step (n) but before drying and after thawing the sponge, soaking the sponge in isopropyl alcohol containing a suitable plasticizer, squeezing and drying the sponge.

INDEPENDENT CLAIMS are also included for the following:

(1) production of a clarified hydrocolloid guar gum (C) or locust bean gum (D), gel, film, foam or capsule;

(2) borating a cis-1,2-diol containing hydrocolloid;

(3) preparation of a capsule of clarified hydrocolloid;

(4) production of a reduced viscosity clarified sol of (A);

(5) production of a hydrocolloid composite containing at least two hydrocolloids which when hydrated, forms a clear hydrocolloid composite sol;

(6) a clarified hydrocolloid composite that forms a clear sol when mixed with water that is a clarified konjac and clarified (C), clarified konjac and clarified xanthan gum, clarified xanthan gum and clarified (C), clarified (B) and clarified (C), clarified konjac and clarified agar, clarified (B) and clarified konjac, clarified konjac and clarified (D), clarified konjac and clarified carboxymethyl cellulose, or clarified (C) and clarified carboxymethyl cellulose;

(7) preparation of a capsule of clarified composite hydrocolloid (preferably clarified guar, agar gel composite of (C) and xanthan gel; agar and (A); (A) and xanthan gel; hydrogen peroxide induced low-viscosity (A) and xanthan gel; or (C) and xanthan gel).

USE - The method is used for the production of clarified polysaccharide sols, particularly sols of konjac glucomannan, aloe mannan, guar gum, locust bean gum for the production of gels, sponge, films, foams, capsules clarified composite hydrocolloids (claimed), in food, pharmaceutical and cosmetic industries.

ADVANTAGE - The method is simple, cost-effective and results in dry hydrocolloid products that, when reconstituted, form clear viscous sols, free of all particulates and retain desirable physical properties, unlike the commercially available products.

Dwg.0/6

FS CPI

FA AB; DCN

MC CPI: B04-C02; B04-N02; B12-M03; B12-M07; B12-M11C; D05-H; D05-H10

TECH UPTX: 20020603

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Method: In the preparation of gel of (A) the alkaline agent is added to deacetylate the sol and form into a gel. The preparation of water soluble flexible hydrocolloid film further involves a step of heating the mixture to boiling before depositing as a layer on a substrate. Glycerin and/or xanthan is added to the clarified hydrocolloid (preferably glucomannan or galactomannan) before the foaming agent is added. A sol of agar, gellan, carrageenan or curldan is added to the clarified hydrocolloid sol before cross-linking with the borating agent. A solution of sodium chloride is included to enhance coagulation. The miscible alcohol is isopropyl alcohol. The dispersions of the first and second clarified hydrocolloids in water are boiled to assist the sol formation. The water soluble alkyl cellulose is substituted for the second hydrocolloid, or added in addition to it. The first clarified hydrocolloid is (A) or sol of (C). The second clarified hydrocolloid is clarified sol of (C), clarified sol of (D), agar sol or xanthan sol (preferably clarified xanthan sol).

TECHNOLOGY FOCUS - POLYMERS - Preferred Gum: For the preparation of the

water soluble flexible hydrocolloid film, the hydrocolloid is further selected from (A), (B), (C), (D), agar, agarose, algins, **beta**-,k-,lambda-carrageenans **chitosan**, collagen, curdlan or other **beta-1,3-glucans**, fig seed gum (galacturonan), gellan, hyaluronic acid, pectins, Rhizobium gum, Porphyridium cruentum, polysaccharide, starch (amylose, amylopectin), acacia gum, gum arabic, chondroitin sulfate, dextran, flaxseed gum, gum ghatti, inulin (fructan), karaya gum, larch arabinogalactan, levan (fructosan), cassia gum, tara gum, fenugreek gum, oat **glucans** okra mucilage, psyllium seed gum, pullulan, quince seed gum, rhamsan, scleroglucan, succinoglucan, tamarind gum, gum tragacanth, wellan or xanthan gum (preferably (A), (B), (C), (D), agar, agarose, algins, **beta**-,k-,lambda-carrageenans, **chitosan**, collagen, curdlan and other (**beta-1,3-glucans**, fig seed gum (galacturonan), gellan, hyaluronic acid, pectins, Rhizobium gum, cassia gum, tara gum, fenugreek gum or xanthan gum). For the preparation of the borated 1,2-doil containing hydrocolloid the hydrocolloid is selected from (A), (B), (C), (D), cassia gum, tara gum, fenugreek gum, agar, gellan, carrageenan or curdlan.

ABEX

EXAMPLE - AMOPHOL LG (RTM; konjac powder) (10 g) was dispersed in deionized water (1 liter) containing dissolved NaCl (25 g). The container containing the dispersion was then covered with a plastic film and the contents were heated to boiling and stirred to keep the swelling particles from settling. The hot mixture containing both the dissolved konjac and swollen particles and the particulate impurities, was then allowed to cool to room temperature and the swollen particles were subjected to the dissolution with a brief high shear blending. A filter aid (50 g) and deionized water (500 ml) was then added, the mixture was blended briefly and filtered through a cloth pad, with recycling until crystal clear. The mixture was then coagulated in 5 % isopropyl alcohol (3 liter). After half an hour, the voluminous coagulate was collected, squeezed, pulled apart, washed in 60 % isopropyl alcohol (500 ml) for half an hour, again, collected, squeezed, pulled apart, washed again with 99 % isopropyl alcohol (500 ml), collected, squeezed, pulled apart, and dried at 40 degrees Centigrade. The dried, fluffy white product (7.4 g, yield = 74 %) was ground to -20 mesh. The material obtained was then dissolved in 0.5 % NaCl to obtain a clear 0.5 % sol. A 1 % sol in deionized water exhibited a viscosity of 10 870 mPas at 25 degrees Centigrade. An equivalent concentration of the starting material (1.35 % based on 74 % yield) had a viscosity of 5 250 mPas at 22 degrees Centigrade.

L119 ANSWER 2 OF 12 WPIX (C) 2003 THOMSON DERWENT
AN 2002-188199 [24] WPIX
DNC C2002-058032
TI Pharmaceutical composition containing combination or new conjugate of hydroxylated polymer and phenylalkanoic acid derivative, having synergistic anticancer effect.
DC A96 B04
IN AVRAMOGLOU, T; BAGHERI, R; CHAUBET, F; CREPIN, M; DAHRI, C L; DIBENEDETTO, M; GERVELAS, C; HUYNH, R; JOZEFONVICZ, J; DAHRI-CORREIA, L
PA (BIOD-N) BIODEX SARL; (BIOD-N) BIODEX
CYC 22
PI WO 2001091742 A1 20011206 (200224)* FR 50p A61K031-19 <--
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
W: CA JP US
FR 2809735 A1 20011207 (200224) C08B037-02
ADT WO 2001091742 A1 WO 2001-FR1672 20010530; FR 2809735 A1 FR 2000-7117 20000602
PRAI FR 2000-7117 20000602
IC ICM **A61K031-19**; C08B037-02
ICS **A61K031-74**; **A61K047-36**; **A61K047-48**; A61P035-00

ICI **A61K031-74, A61K031:721**
AB WO 200191742 A UPAB: 20020416
NOVELTY - New pharmaceutical compositions contain, as active agent, a conjugate or combination of a hydroxylated polymer and a phenylalkanoic acid derivative. The conjugates are new compounds.

DETAILED DESCRIPTION - A pharmaceutical composition (A) contains at least one active agent selected from:

(a) conjugates of formula Q-(O-CO-(CH2)nPh)d (I), derived from polymers (II) having at least one free hydroxy function and phenylalkanoic acid derivatives of formula Ph-(CH2)n-COOR (III); and/or

(b) combinations of polymers (II') of molecular weight 5000 Daltons or more having at least one free hydroxy function with phenylalkanoic acid salts of formula (III; R = alkali metal).

Composition (A) optionally additionally contains one or more of further active agents, vehicles and/or carriers.

R = H, halo, alkali metal (e.g. Na or K) or -CO(CH2)mPh;
n, m = 1-3;
Q = polymer containing at least one free OH group;
d (degree of substitution) = 0.05-1.5 (preferably more than 0.15).

An INDEPENDENT CLAIM is also included for the conjugates (I) as new compounds.

ACTIVITY - Cytostatic.

Athymic mice with transplanted MCF-7ras tumors were injected twice weekly for 7 weeks with (i) 40 mg of sodium phenylacetate (NaPA), (ii) 150 mg/kg LS4 DCMB (functionalized dextran) or (iii) a combination of 40 mg/kg NaPA and 150 mg/kg LS4 DMCB. The inhibition of tumor growth was (i) 59%, (ii) 38% after 4 weeks or (iii) 83%.

MECHANISM OF ACTION - None given in the source material.

USE - (A) Have antiproliferative, cytostatic, necrotizing, pro-apoptotic, anti-angiogenic, antimetastatic and mitogenic factor inhibiting activity (all claimed). They are especially used in the treatment of cancer, particularly melanoma or hormone-dependent or non-hormone dependent breast cancer.

ADVANTAGE - In combination, the polymer and phenylalkanoic acid components show a synergistic anticancer effect (e.g. against MCF-7 cells). Both components can thus be used at lower doses. In particular the anticancer effect is markedly superior to that of sodium phenylacetate used alone.

Dwg.0/5
FS CPI
FA AB; DCN
MC CPI: A10-E09; A12-V01; B04-C02; B04-C03; B14-H01
TECH UPTX: 20020416
TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Components: (II)/(II') are natural or synthetic polymers, optionally functionalized at the hydroxy groups with one or more of carboxylic, alkyl carboxylic, aralkyl carboxylic, N-benzylethylene-carboxamide, sulfate and/or sulfonate groups. The polymers are preferably polyols or polysaccharides, especially glucosans (e.g. starch, glycogen, cellulose, dextran, poly-**beta-1,3-glucans** or **chitin**), arabans, xylans or pectins. In particular the polymers are synthetic functionalized dextran derivatives of formula D(MC)a(B)b(Su)c (IIA) and (I) are corresponding conjugates of formula (D(MC)a(B)b(Su)c)-(O-CO-(CH2)nPh) (IA).

D = polysaccharide chain, preferably formed by linked glucoside units;
MC = methylcarboxylic group;
B = N-benzylmethylene-carboxamide group;
Su = sulfate group (obtained by sulfation of free hydroxy functions carried by glucoside units);
a = 0-2 (preferably 1-1.5);
b = 0-1 (preferably 0.1-1);
c = 0-1 (preferably 0-0.6);
a+b+c = 3 or less in (IIA); and

a+b+c+d = 3 or less in (IA).
Preferably in (IA), a is more than 0.5, b is less than 0.15, c is up to 0.8 and d is more than 1.5. In combinations (b) (III; R = alkali metal) is sodium or potassium phenylacetate, phenylpropionate or phenylbutyrate; and the ratio of concentration of (II') to (III; R = alkali metal) is 1-10:1.

TECHNOLOGY FOCUS - POLYMERS - Preferred Materials: The polymers (II)/(II') are polyols or polysaccharides, especially glucosans (e.g. starch, glycogen, cellulose, dextran, poly-**beta-1,3-glucans** or **chitin**), arabans, xylans or pectins, particularly functionalized dextrans. Preparation: (I) are prepared by conventional esterification methods. .

ABEX

ADMINISTRATION - (A) is administered systemically, specifically at an active agent dose of 0.1-200 mg/kg per day twice a week (all claimed). (A) is typically administered subcutaneously, intravenously or orally.

EXAMPLE - A solution of 37 g of the pyridine salt of LS17 (functionalized dextran) was treated under nitrogen with 42.8 ml pyridine then treated rapidly under stirring with a solution. After stirring for a further 1 hour, reaction was terminated by adding 1 M sodium hydroxide solution. The product was purified by ultrafiltration then recovered by concentrating, freezing and lyophilizing. The obtained dextran-sodium phenylacetate conjugate had a phenylacetyl degree of substitution of 0.35.

L119 ANSWER 3 OF 12 WPIX (C) 2003 THOMSON DERWENT
AN 2002-097616 [13] WPIX
DNC C2002-030408
TI Contrast agents susceptible of changing pharmacodynamic and/or pharmacokinetic properties upon enzymatic activity, useful in diagnosis of cancer, cardiovascular diseases and inflammation in humans and animals.
DC B04 D16
IN KLAVENESS, J; TOLLESHAUG, H
PA (NYCO-N) NYCOMED IMAGING AS
CYC 94
PI WO 2001089584 A2 20011129 (200213)* EN 77p A61K049-00 <--
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
AU 2001074683 A 20011203 (200221) A61K049-00 <--
ADT WO 2001089584 A2 WO 2001-NO215 20010523; AU 2001074683 A AU 2001-74683 20010523
FDT AU 2001074683 A Based on WO 200189584
PRAI NO 2000-2644 20000523
IC ICM **A61K049-00**
ICS **A61K049-04; A61K049-06; A61K049-22; A61K051-00**
AB WO 200189584 A UPAB: 20020226
NOVELTY - A contrast agent substrate (I) susceptible of changing pharmacodynamic and/or pharmacokinetic properties upon the influence of enzymatic activity, is new.
DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for detection of abnormal enzymatic activity characterized in that (I) is administered to a human or animal body and (I) is detected as a result of (I) changing pharmacodynamic and/or pharmacokinetic properties upon influence of enzymatic activity.
USE - The contrast agent substrate is useful for detection of tissue or cells with abnormal metabolic activity, for identification and/or diagnosis of cancer, cardiovascular diseases, diseases on the central nervous system, inflammations, or infections and detection of an area of a

disease of abnormal enzymatic activity, where the substrate is administered to human or animal body and a contrast agent signal is detected as a result of the contrast agent changing pharmacodynamic and/or pharmacokinetic properties. The substrate is useful for manufacturing a medicament for detecting an area of disease of abnormal enzymatic activity (claimed). The contrast agent is useful in diagnosis of cardiac failure, myocardial infarction, atherosclerosis, thrombosis, embolism, aneurysms, stroke, hemorrhage, central nervous system diseases, preferably Alzheimer's disease or multiple sclerosis, bone diseases such as osteoporosis, viral infections, and for identification of apoptosis and necrosis.

ADVANTAGE - The metabolically sensitive contrast agents are more sensitive to pathology than morphological contrast agents. As abnormal enzymatic activity is an early sign of disease/condition, the contrast agents have a potential for diagnosing disease at an early stage, which in many clinical situations are important for the outcome of the treatment. The agents are very sensitive to treatment and can be used to follow up treatment.

Dwg.0/2

FS CPI

FA AB; DCN

MC CPI: B04-F01; B04-L01; B11-C07B5; B11-C08A; B11-C08E3; B12-K04A; D05-A02; D05-H09

TECH UPTX: 20020226

TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preferred Substrate: The contrast agent substrate is MRI (Magnetic Resonance Imaging), radiopharmaceutical, ultrasound, optical imaging or x-ray contrast agent. The contrast agent substrate comprises a contrast active element bound to an enzyme substrate, optionally the contrast active element and the substrate are linked by a spacer, and the substrate further comprises a targeting vector. The enzyme substrate is processed by the enzyme and liberates the contrast active element attached to the targeting vector, where the targeting vector attached to the contrast active element is bound to a target/receptor in or around the diseased area and thus enhancing the binding of the contrast active element. The substrate upon an enzymatic transformation changes binding properties to biological surfaces and results in a change in rate of penetration of biological membranes and/or in changes in membrane permeability and/or affinity for a transport protein. The enzymatic transformation modifying the contrast agent substrate to a contrast agent product involves one or more of the enzymes, angiotensin converting enzyme (ACE), hydroxymethyl glutaryl-CoA reductase, endothelial constitutive nitric oxide synthase, (inducible) nitric oxide synthase, endothelin converting enzyme, protein serine-threonine kinase, superoxide dismutase, thrombin, plasmin, plasminogen activator and lipoprotein lipase, protein kinases, monoamine oxydase, myelin basic protein kinase, glutamate translocase, tyrosine 3-monooxygenase, hydrolases, matrix protease and calpain, collagenases, RNA replicase, endopeptidase, DNA helicase, viral neuramidase, human immunodeficiency virus (HIV) reverse transcriptase, viral integrase and proteases, **beta**-lactamase, serine endopeptidase, muramidase, **1**, **3-beta-glucan** synthase, calcineurin, **chitin** synthetase, glycylpeptide-N-myristoyl transferase, phosphatase, esterase or glucosidase, preferably cyclooxygenase, farnesyltransferase, matrix metalloproteinases, topoisomerase and telomerase. The change in pharmacodynamic and/or pharmacokinetic properties upon the influence of enzymatic activity involves a change from the contrast agent substrate to a contrast agent product involving a chemical modification, upon a specific enzymatic transformation.

ABEX

EXAMPLE - Bis((1,1-dimethyl-2-N-hydroxyimine propyl)aminoethyl)-2-aminoethyl amine) (Pn216)-succininyl- Gly-His-His-Pro-His-Gly-Pro-Ile-Cys(Et)-Phe-Phe-Arg-Leu-OH was synthesized. The peptide component was synthesized on an ABI 433A automatic peptide synthesizer. The amino acids

were pre-activated using HBTU (O-(benzotriazol-1-yl)- 1,1,3,3-tetramethyluronium hexafluorophosphate) before coupling and the resin capped using succinic acid anhydride yielding a resin bound acid function. On-resin activation using 3 equivalents of PyAOP, HoAt, and N-methylmorpholine was carried out in DMF (N,N-dimethylformamide) (10 ml) for 10 minutes before the addition of a solution in DMF (5 ml) of Pn216. The coupling reaction was allowed to proceed for 4 hours then the resin washed with DMF, DCM and diethyl ether before air-drying. The peptide and side-chain protecting groups were simultaneously removed in trifluoro acetic acid (TFA) containing TIS (5%), H2O (5%) and phenol (2.5%) for 2 hours. The crude peptide was purified. The technetium-chelate of the compound was made by conventional methods and the chelate was used as a contrast agent substrate for Cathepsin D in nuclear medicine imaging.

L119 ANSWER 4 OF 12 WPIX (C) 2003 THOMSON DERWENT
AN 2001-062449 [08] WPIX
DNC C2001-017542
TI Collagen-free cosmetic compositions, especially useful as facial masks, produced by crosslinking swollen aqueous suspensions of **chitosan** and **beta-1,3-glucan** with diisocyanates and/or dialdehydes.
DC A11 A96 B07 D21
IN **GRIESBACH, U**; HORLACHER, P; **WACHTER, R**
PA (COGN-N) COGNIS DEUT GMBH; (BIOT-N) BIOTEC ASA
CYC 26
PI DE 19920557 A1 20001116 (200108)* 9p C08B037-08 <--
WO 2000068273 A1 20001116 (200108) DE C08B037-00
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
W: AU CA CN JP KR NZ US
AU 2000045578 A 20001121 (200112) C08B037-00
EP 1173488 A1 20020123 (200214) DE C08B037-00
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
KR 2002011983 A 20020209 (200257) A61K007-48 <--
CN 1349545 A 20020515 (200260) C08B037-00
JP 2002544140 W 20021224 (200313) 33p A61K007-00 <--
ADT DE 19920557 A1 DE 1999-19920557 19990505; WO 2000068273 A1 WO 2000-EP3762 20000426; AU 2000045578 A AU 2000-45578 20000426; EP 1173488 A1 EP 2000-927067 20000426, WO 2000-EP3762 20000426; KR 2002011983 A KR 2001-714114 20011105; CN 1349545 A CN 2000-807209 20000426; JP 2002544140 W JP 2000-616245 20000426, WO 2000-EP3762 20000426
FDT AU 2000045578 A Based on WO 200068273; EP 1173488 A1 Based on WO 200068273; JP 2002544140 W Based on WO 200068273
PRAI DE 1999-19920557 19990505
IC ICM **A61K007-00**; **A61K007-48**; C08B037-00; **C08B037-08**
ICS **A61K007-02**; **C08L005-08**
AB DE 19920557 A UPAB: 20010207
NOVELTY - Collagen-free cosmetic compositions are produced by crosslinking swollen aqueous suspensions of **chitosan** and **beta** - **1,3-glucan** with diisocyanates and/or dialdehydes and dewatering the products.
USE - The compositions are especially useful as facial masks.
ADVANTAGE - The **beta -1,3-glucan** improves the dermatological compatibility, immunostimulant activity and flexibility of the compositions and facilitates incorporation of additives (compared with DE19643066).
Dwg.0/0
FS CPI
FA AB; DCN
MC CPI: A03-A00A; A08-D04A; A12-V04C; B04-C02; B14-R01; D08-B03; D08-B09A; D08-B09B
TECH UPTX: 20010207
TECHNOLOGY FOCUS - POLYMERS - Preferred Process: The **chitosan**

has a molecular weight of 10,000-1,200,000. The **beta-1 ,3-glucan** is water-soluble and largely free of 1,6-linkages. The crosslinking agent is a diisocyanate of formula (I), especially hexamethylene diisocyanate, and/or a dialdehyde of formula (II), especially glutaraldehyde.
X, Y = 1-12C linear, branched, naphthenic or aromatic hydrocarbylene.
The suspension may also contain polyols, e.g. technical oligoglycerol mixtures.

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Composition: The composition may also contain biogenic active ingredients, deodorants, antiperspirants and anti-dandruff agents.

L119 ANSWER 5 OF 12 WPIX (C) 2003 THOMSON DERWENT
AN 2001-017232 [03] WPIX
DNC C2001-004941
TI Synergistic cosmetic deodorant preparation containing **beta-(1,3)-glucan**, aluminum chlorohydrate and esterase inhibitor and/or bactericidal/bacteriostatic agent.
DC B05 D22 E33
IN **ENGSTAD, R; FABRY, B; GRIESBACH, U; WACHTER, R; ENGSTAD, R E**
PA (BIOT-N) BIOTEC ASA; (COGN-N) COGNIS DEUT GMBH; (BIOT-N) BIOTEC PHARMACON ASA
CYC 26
PI DE 19917743 A1 20001026 (200103)* 8p A61K007-32 <--
WO 2000062752 A1 20001026 (200103) DE A61K007-38 <--
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
W: AU CA CN JP KR NZ US
AU 2000045465 A 20001102 (200107) A61K007-38 <--
EP 1171087 A1 20020116 (200207) DE A61K007-38 <--
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
KR 2001113811 A 20011228 (200240) A61K007-38 <--
CN 1347305 A 20020501 (200252) A61K007-38 <--
JP 2002542180 W 20021210 (200301) 30p A61K007-38 <--
US 6497863 B1 20021224 (200303) A61K007-32 <--
ADT DE 19917743 A1 DE 1999-19917743 19990420; WO 2000062752 A1 WO 2000-EP3192 20000411; AU 2000045465 A AU 2000-45465 20000411; EP 1171087 A1 EP 2000-926860 20000411, WO 2000-EP3192 20000411; KR 2001113811 A KR 2001-713252 20011017; CN 1347305 A CN 2000-806439 20000411; JP 2002542180 W JP 2000-611889 20000411, WO 2000-EP3192 20000411; US 6497863 B1 WO 2000-EP3192 20000411, US 2002-958057 20020208
FDT AU 2000045465 A Based on WO 200062752; EP 1171087 A1 Based on WO 200062752; JP 2002542180 W Based on WO 200062752; US 6497863 B1 Based on WO 200062752
PRAI DE 1999-19917743 19990420
IC ICM **A61K007-32; A61K007-38**
ICS A01N025-00; **A61K007-00; A61K025-00; A61K031-715; A61K035-78**
AB DE 19917743 A UPAB: 20010116
NOVELTY - A deodorant preparation (I) contains: (A) water-soluble **beta -(1,3)-glucans** (free of **beta** -(1,6)-linkages); (B) aluminum chlorohydrate; and (C) esterase inhibitors and/or bactericidal/bacteriostatic agents.
DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for the use of (A) for the production of deodorant preparations.
USE - As a cosmetic deodorant composition, formulated e.g. as a roll-on emulsion, stick or pump spray.
ADVANTAGE - The polysaccharides (A) (described e.g. in WO95130022) inhibit esterolytic activity even at sub-ppm concentrations, and have a synergistic deodorant effect in combination with (B) and (C). (A) selectively inhibit serine esterases or serine proteases without affecting the biological equilibrium of the skin flora. They also have an

immunostimulant effect and improve the tolerance of the products as skin cosmetics.
Dwg.0/0
FS CPI
FA AB; DCN
MC CPI: B04-A08D; B04-C02; B04-F09C; B05-A01B; B05-C07; B10-E04C; B12-M01A; B12-M02B; B12-M03; B14-A01; B14-D07A; B14-D07C; B14-G01; B14-R03; B14-S09; D08-B09B; D09-A01C; D09-E; E10-E04L2; E10-G02G2; E34-C03
TECH UPTX: 20010116
TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Composition: (A) are **glucans** based on yeasts of the Saccharomyces family. Preferably (A) are obtained by contacting **glucans** containing **beta**-(1,3)- and **beta**-(1,6)-linkages with **beta**-(1,6)-glucanases (specifically based on Trichoderma harzianum) such that all the **beta**-(1,6)-linkages are dissolved. The esterase inhibitors (C) are trialkyl citrates. The bactericide/bacteriostat (C) is **chitosan**. (I) contains 0.01-50 wt. % (A), 1.0-50 wt. % (B) and 0.01-20 wt. % esterase inhibitor and/or 0.01-5.0 wt. % bactericide/bacteriostat (C).
ABEX
EXAMPLE - A composition (I') comprised 0.5 wt. % Highcareen GS (RTM; beta-glucan), 50.0 wt. % aluminum chlorohydrate, 5.0 wt. % triethyl citrate, 1.0 wt. % **chitosan**, 1.0 wt. % ethanol and water to 100 wt. %. Various dilutions of (I') were tested for esterase activity at pH 6 (adjusted with sodium hydroxide) using a contact time of 15 minutes. The residual esterase activity was 0%, 12% or 55% using (I') at 10 ppm, 12 ppm or 0.1 ppm respectively. For comparison, the residual activity was 75% or 100% using a beta-glucan-free composition (50 wt. % aluminum chlorohydrate, 5 wt. % triethyl citrate, 20 wt. % ethanol and water to 100%) at 2000 ppm or 500 ppm respectively.

L119 ANSWER 6 OF 12 WPIX (C) 2003 THOMSON DERWENT
AN 2000-657193 [64] WPIX
DNC C2000-198933
TI Cosmetic compositions containing water-soluble **beta-glucan** and **chitosan** compounds, useful as skin and hair care products and sunscreen agents.
DC A11 A96 B07 D16 D21
IN **ANSMANN, A; EISFELD, W; ENGSTAD, R E; FABRY, B; GRIESBACH, U; WACHTER, R**
PA (BIOT-N) BIOTEC ASA; (COGN-N) COGNIS DEUT GMBH
CYC 26
PI DE 19911056 A1 20000921 (200064)* 14p A61K007-00 <--
WO 2000054738 A1 20000921 (200064) DE A61K007-06 <--
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
W: AU CA CN JP KR NZ US
AU 2000029175 A 20001004 (200101) A61K007-06 <--
EP 1165020 A1 20020102 (200209) DE A61K007-06 <--
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
KR 2002000150 A 20020104 (200244) A61K007-00 <--
CN 1347302 A 20020501 (200252) A61K007-06 <--
JP 2002539144 W 20021119 (200281) 34p A61K007-00 <--
ADT DE 19911056 A1 DE 1999-19911056 19990312; WO 2000054738 A1 WO 2000-EP1837 20000303; AU 2000029175 A AU 2000-29175 20000303; EP 1165020 A1 EP 2000-907664 20000303, WO 2000-EP1837 20000303; KR 2002000150 A WO 2000-EP1837 20000303, KR 2001-711584 20010912; CN 1347302 A CN 2000-806361 20000303; JP 2002539144 W JP 2000-604816 20000303, WO 2000-EP1837 20000303
FDT AU 2000029175 A Based on WO 200054738; EP 1165020 A1 Based on WO 200054738; KR 2002000150 A Based on WO 200054738; JP 2002539144 W Based on WO 200054738
PRAI DE 1999-19911056 19990312
IC ICM **A61K007-00; A61K007-06**
ICS **A61K007-075; A61K007-08; A61K007-42;**

A61K007-48; **A61K007-50**; C11D003-38

AB DE 19911056 A UPAB: 20001209
NOVELTY - Cosmetic composition contains:
(a) water-soluble **beta** -(1,3)-**glucans** free from **beta** -(1,6) linkages; and
(b) **chitosans** to improve skin vitalizing and film forming properties.
USE - The compositions are useful for hair and body care as well as sunscreen agents. They are especially suitable for body care where they improve skin aging, wrinkling and roughness. The compositions can be formulated as e.g. shampoos, hair lotions, foam baths, face and body lotions, baby care products and decorative cosmetics.
ADVANTAGE - Components (a) and (b) have a synergistic effect, with (b) increasing the skin vitalizing properties of (a) and (a) enhancing the film forming properties of (b).
In volunteer trials carried out over 28 days, a skin cream containing 20 parts of component (a) and 2 parts of component (b) gave a relative skin aging (initial value = 100%) of 73%, while a comparative cream without component (b) gave a relative skin aging of 79%.
Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: A03-A00A; A10-E09; A12-V04A; A12-V04C; **B04-C02E3**; B04-C02F; B14-N17; B14-R01; B14-R02; B14-R05; B14-S09; D05-A02C; D05-C08; D08-B01; D08-B04; D08-B09A

TECH UPTX: 20001209
TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Composition: The composition contains 0.01-25 (especially 1-5) wt.% of component (a) and 0.01-5 (especially 1-2) wt.% of component (b), with the remainder comprising water and optionally adjuvants and additives.
Preferred **Glucans**: The **glucans** are obtained by contacting **glucans** having **beta**-(1,3) and **beta** -(1,6) linkages with **beta**-(1,6)-glucanases in a manner to remove **beta**-(1,6) linkages as far as possible, especially using glucanases from Trichoderma harzianium.
Preferred **Chitosans**: The **chitosans** have a molecular weight of 50,000-500,000 Dalton or 8000-1,200,000 Dalton and are especially carboxylated or succinylated **chitosans**.

TECHNOLOGY FOCUS - BIOTECHNOLOGY - The **beta**-(1,3)-**glucans** are obtained by contacting **glucans** having **beta**-(1,3) and **beta**-(1,6) linkages with glucanases from Trichoderma harzianium.

ABEX
EXAMPLE - A typical skin cream contains (parts) cetylstearyl alcohol (6), ceteareth-12 (1.5), ceteareth-20 (1.5), cetearyl isononanoate (15), viscous paraffin oil (5), baysilon oil M 300 (5), Highcareen GS (RTM; beta-(1,3)-glycan) (20), Hydagen CMF (RTM; **chitosan**) (2), glycerol (6) and water (ad 100).

L119 ANSWER 7 OF 12 WPIX (C) 2003 THOMSON DERWENT
AN 2000-639506 [62] WPIX
DNC C2000-192576
TI Film-forming hair cosmetic compositions comprise water-soluble **beta-(1,3)-glucans** and polymers.
DC A11 A14 A96 B07 D16 D21
IN **ENGSTAD, R E**; **FABRY, B**; **GRIESBACH, U**; **WACHTER, R**
PA (BIOT-N) BIOTEC ASA; (COGN-N) COGNIS DEUT GMBH; (BIOT-N) BIOTEC PHARMACON ASA
CYC 26
PI DE 19911057 A1 20000921 (200062)* 9p A61K007-06 <--
WO 2000054737 A1 20000921 (200062) DE A61K007-06 <--

RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
W: AU CA CN JP KR NZ US
AU 2000038085 A 20001004 (200101) A61K007-06 <--
DE 19911057 C2 20010125 (200106) A61K007-06 <--
EP 1165023 A1 20020102 (200209) DE A61K007-06 <--
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
KR 2001109519 A 20011210 (200237) A61K007-06 <--
CN 1347303 A 20020501 (200252) A61K007-06 <--
JP 2002539143 W 20021119 (200281) 30p A61K007-11 <--
US 6497865 B1 20021224 (200303) A61K007-06 <--

ADT DE 19911057 A1 DE 1999-19911057 19990312; WO 2000054737 A1 WO 2000-EP1834 20000303; AU 2000038085 A AU 2000-38085 20000303; DE 19911057 C2 DE 1999-19911057 19990312; EP 1165023 A1 EP 2000-916896 20000303, WO 2000-EP1834 20000303; KR 2001109519 A KR 2001-711589 20010912; CN 1347303 A CN 2000-806384 20000303; JP 2002539143 W JP 2000-604815 20000303, WO 2000-EP1834 20000303; US 6497865 B1 WO 2000-EP1834 20000303, US 2002-936788 20020123

FDT AU 2000038085 A Based on WO 200054737; EP 1165023 A1 Based on WO 200054737; JP 2002539143 W Based on WO 200054737; US 6497865 B1 Based on WO 200054737

PRAI DE 1999-19911057 19990312

IC ICM **A61K007-06; A61K007-11**
ICS **A61K007-00; A61K031-715; A61K035-78**

AB DE 19911057 A UPAB: 20001130
NOVELTY - Hair cosmetic compositions comprising water-soluble **beta**-(**1,3**)-**glucans** (I) and polymers (II) are new, where (I) are substantially free of **beta**-(1-6) linkages.
USE - The compositions are useful for hair styling.
ADVANTAGE - (I) increase the hardness of vinyl pyrrolidone/vinyl acetate copolymer films and reduce stress cracking.
Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: A03-A00A; A04-D05A; A04-F09; A12-V04A; B04-C02F; B04-C03A; B04-C03B; B14-R02; D05-A02C; D05-C08; D08-B05

TECH UPTX: 20001130
TECHNOLOGY FOCUS - POLYMERS - Preferred **Glucans**: (I) are products obtained by treating **glucans** derived from Saccharomyces yeasts with a **beta**-(1,6)-glucanase to destroy practically all of the **beta**-(1-6) linkages.
Preferred Polymers: (II) are anionic, nonionic, amphoteric and/or zwitterionic film-forming polymers, especially vinyl pyrrolidone/vinyl acetate copolymers.
Preferred Compositions: The compositions can also contain cationic polymers, especially **chitosan** or **chitosan** derivatives.

L119 ANSWER 8 OF 12 WPIX (C) 2003 THOMSON DERWENT

AN 2000-628979 [61] WPIX

DNC C2000-188621

TI Use of surface-active mixtures comprising anionic and/or nonionic surfactants and water-soluble **beta**-(**1,3**)-**glucans** to prepare oral and dental care products, e.g. with improved foam stability.

DC A11 A96 B07 D13 D16 D21

IN **ENGSTAD, R E; FABRY, B; GRIESBACH, U; WACHTER, R**

PA (BIOT-N) BIOTEC ASA; (COGN-N) COGNIS DEUT GMBH; (BIOT-N) BIOTEC AB

CYC 26

PI DE 19911055 A1 20000921 (200061)* 7p A61K007-16 <--
WO 2000054739 A1 20000921 (200061) DE A61K007-16 <--
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
W: AU CA CN JP KR NZ US
AU 2000031633 A 20001004 (200101) A61K007-16 <--

EP 1165028 A1 20020102 (200209) DE A61K007-16 <--
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
KR 2001109312 A 20011208 (200237) A61K007-16 <--
CN 1346259 A 20020424 (200251) A61K007-16 <--
JP 2002539145 W 20021119 (200281) 21p A61K007-16 <--
ADT DE 19911055 A1 DE 1999-19911055 19990312; WO 2000054739 A1 WO 2000-EP1828 20000303; AU 2000031633 A AU 2000-31633 20000303; EP 1165028 A1 EP 2000-909298 20000303, WO 2000-EP1828 20000303; KR 2001109312 A KR 2001-711587 20010912; CN 1346259 A CN 2000-804961 20000303; JP 2002539145 W JP 2000-604817 20000303, WO 2000-EP1828 20000303
FDT AU 2000031633 A Based on WO 200054739; EP 1165028 A1 Based on WO 200054739; JP 2002539145 W Based on WO 200054739
PRAI DE 1999-19911055 19990312
IC ICM **A61K007-16**
ICS A23G003-30; **A61K009-68**
AB DE 19911055 A UPAB: 20001128
NOVELTY - Surface-active mixtures comprising anionic and/or nonionic surfactants and water-soluble **beta** -(1,3)-**glucans** (I) are used to prepare oral and dental care products, where (I) are substantially free of **beta** -(1,6) linkages, is new.
ACTIVITY - Immunostimulant; antimicrobial.
MECHANISM OF ACTION - None given.
USE - For preparing toothpastes, tooth gels, mouthwashes or chewing gums (claimed), which may have antimicrobial and immunostimulant activity.
ADVANTAGE - Inclusion of (I) improves oral mucosal compatibility, promotes plaque removal, has a foam-stabilizing effect and improves the dispersion of abrasives.
Dwg.0/0
FS CPI
FA AB; DCN
MC CPI: A10-E09; A12-V04B; B04-C02; B12-M09; B14-A01; B14-G01; B14-N06; D03-E09; D08-B08
TECH UPTX: 20001128
TECHNOLOGY FOCUS - POLYMERS - Preferred **Glucans**: (I) are obtained by treating **glucans** derived from Saccharomyces yeasts with a **beta**-(1,6)-glucanase, especially derived from Trichderma harzianum, to the **beta**-(1-6) linkages.
Preferred Surfactants: The anionic surfactants can include alkyl ether sulfates and monoglyceride ether sulfates. The nonionic surfactants are preferably alkyl and/or alkenyl oligoglycosides.
Preferred Mixtures: The mixtures can also include **chitosan** and/or **chitosan** derivatives.

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Surfactants: The anionic surfactants can include alkyl sulfates, alkyl ether sulfates, monoglyceride (ether) sulfates and olefin sulfonates.
ABEX
EXAMPLE - A toothpaste comprised (wt. %): sodium lauryl sulfate (2), betaglucan (0.1), silica gel (22), sodium carboxymethyl cellulose (1.2), sodium saccharin (0.1), sodium benzoate (0.1), sodium fluoride (0.2), 70 % sorbitol (15), 86 % glycerol (25), flavor (3) and water (to 100).

L119 ANSWER 9 OF 12 WPIX (C) 2003 THOMSON DERWENT
AN 1999-418845 [35] WPIX
DNC C1999-123092
TI Use of polyanionic and polyanionically-derivatised natural polysaccharides in dental compositions.
DC A11 A96 B05 D21
IN BASCHONG, W; FANKHAUSER, P; HEINEMANN, G; HUEGLIN, D
PA (CIBA) CIBA SPECIALTY CHEM HOLDING INC; (CIBA) CIBA SPECIALTY CHEM CORP
CYC 85
PI WO 9932073 A1 19990701 (199935)* EN 22p A61K007-16 <--

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW

AU	9920526	A	19990712	(199950)		A61K007-16	<--
EP	1041960	A1	20001011	(200052)	EN	A61K007-16	<--
	R: CH DE FR GB IT LI						
CN	1283100	A	20010207	(200129)		A61K007-16	<--
JP	2001526201	W	20011218	(200203)	25p	A61K007-16	<--
EP	1041960	B1	20020717	(200254)	EN	A61K007-16	<--
	R: CH DE FR GB IT LI						
DE	69806638	E	20020822	(200263)		A61K007-16	<--
US	6514950	B1	20030204	(200313)		A01N043-04	

ADT WO 9932073 A1 WO 1998-EP7999 19981209; AU 9920526 A AU 1999-20526 19981209; EP 1041960 A1 EP 1998-965242 19981209, WO 1998-EP7999 19981209; CN 1283100 A CN 1998-812506 19981209; JP 2001526201 W WO 1998-EP7999 19981209, JP 2000-525069 19981209; EP 1041960 B1 EP 1998-965242 19981209, WO 1998-EP7999 19981209; DE 69806638 E DE 1998-606638 19981209, EP 1998-965242 19981209, WO 1998-EP7999 19981209; US 6514950 B1 WO 1998-EP7999 19981209, US 2000-581876 20000619

FDT AU 9920526 A Based on WO 9932073; EP 1041960 A1 Based on WO 9932073; JP 2001526201 W Based on WO 9932073; EP 1041960 B1 Based on WO 9932073; DE 69806638 E Based on EP 1041960, Based on WO 9932073; US 6514950 B1 Based on WO 9932073

PRAI EP 1998-810616 19980702; EP 1997-811012 19971222

IC ICM A01N043-04; **A61K007-16**
ICS **A61K007-18; A61K007-28; C08B037-08;** C12N009-99

AB WO 9932073 A UPAB: 19990902

NOVELTY - Polyanionic and polyanionically-derivatised natural polysaccharides or non-derivatised natural polysaccharides can be used to inhibit alkaline phosphatase.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for an oral composition comprising:

(i) 0.01-10 wt.% of at least one linear molecularly dehydrated polyphosphate salt, and

(ii) 0.0001-5 wt.% of a polyanionic or polyanionically-derivatised natural polysaccharide.

ACTIVITY - Anti-plaque formation.

MECHANISM OF ACTION - Alkaline phosphatase inhibitor.

USE - In an oral composition for prophylaxis against or removal of bacterial plaque, and for preventing adhesion of and for desorbing microorganisms on solid surfaces (claimed). Phosphonomethylated **chitosan** in a concentration of 0.2% caused 76% inhibition of adhesion of Streptococcus mutans in in vitro tests.

Dwg.0/0

FS CPI

FA AB; GI; DCN

MC CPI: A03-A00A; A12-V04B; B04-C02; **B04-C02E3**; B14-A01; B14-A01B2; B14-D03; B14-N06A; D08-A05

TECH UPTX: 19990902

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Polysaccharides: The natural polyanionic polysaccharides are mucopolysaccharides, and have a molecular weight of more than 5000. The polyanionically-derivatised natural polysaccharides are derived from dextrans, xanthans and **glucans**, and contain phosphate, phosphonate or methylphosphonate groups. The natural polysaccharide is **chitin** or **chitosan** . The **chitosan** is phosphonomethylated **chitosan** containing repeating units of formula (I).

R1 = H or P(=O)(OX1)(OX2);

R2 = P(=O)(OX1)(OX2);

X1, X2 = H, 1-5C alkyl or alkali or ammonium ion, especially alkali;
n = 20-4000, especially 20-1000.
Especially, the **chitosan** has formula (II). The non-derivatised natural polysaccharide is **1,3- beta-glucan.**
Preferred Composition: Component (i) is hexametaphosphate, tripolyphosphate, pyrophosphate or a mixture. The composition further includes an antimicrobial agent of formula (IV).
Y = Cl or Br;
Z' = SO2H, NO2 or 1-4C alkyl;
r, o = 0-3;
p, m, n = 0-1.

ABEX
EXAMPLE - A toothpaste comprised (in wt.%): distilled water (ad 100); D-glucitol (40); Zeodent 113 (20); glycerol (20); tetrasodium pyrophosphate (12); disodium pyrophosphate (3.4); sodium lauryl sulfate (1.37); aromatics (1.35); PEG-6 (1.33); sodium carboxymethylcellulose (1); sodium fluoride (0.5); acrylic acid homopolymer (0.2); saccharin sodium (0.2); titanium dioxide (0.16); phosphonomethylated **chitosan** (0.03); FD and C Blau Cl 42090 (no. 1, 1% solution) (0.03).

L119 ANSWER 10 OF 12 WPIX (C) 2003 THOMSON DERWENT
AN **1995-192851** [25] WPIX
TI Pathogenic microorganisms inhibiting sodium salt of carboxymethyl-**beta-D-glucan-chitosan** - prepared by hydrolysing Aspergillus niger mycelium, sepg. resulting polysaccharide etc. NoAbstract.
DC A96 B04 D16
IN KOCNA, A; MACHOVA, E; SANDULA, J; VRANA, D
PA (CHSA-N) CHEM USTAV SAV; (MIKR-N) MIKROBIOLOGICKY USTAV AKAD VED CR
CYC 1
PI SK 9300658 A3 19950208 (199525)* C07H005-06
ADT SK 9300658 A3 SK 1993-658 19930624
PRAI SK 1993-658 19930624
IC ICM C07H005-06
ICS **A61K031-725**; C07B041-08; **C08B037-08**
FS CPI
FA NOAB
MC CPI: A10-A; A10-E09; A10-E21A; **B04-C02E3**; B04-F09A; B14-A04; D05-H13

L119 ANSWER 11 OF 12 WPIX (C) 2003 THOMSON DERWENT
AN 1994-217864 [26] WPIX
DNC C1994-099173
TI Synergistic fungicidal compsn contg cell wall degrading enzyme and sterol synthesis inhibitor or thiol inactivator - for use in agriculture, esp. to control Botrytis cinerea, or in medicine.
DC B04 C05 D16
IN DI, PIETRO A; HARMAN, G E; HAYES, C K; LORITO, M; PIETRO, A D
PA (CORR) CORNELL RES FOUND INC
CYC 20
PI WO 9413784 A1 19940623 (199426)* EN 41p C12N001-14
RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE
W: CA JP
US 5326561 A 19940705 (199426) 12p A61K037-54 <--
US 5433947 A 19950718 (199534) 12p A61K037-54 <--
EP 684988 A1 19951206 (199602) EN C12N001-14
R: CH DE ES FR GB IT LI NL
EP 684988 A4 19970730 (199813) C12N001-14
ADT WO 9413784 A1 WO 1993-US10121 19931028; US 5326561 A US 1992-990609 19921215; US 5433947 A Cont of US 1992-990609 19921215, US 1994-249927 19940526; EP 684988 A1 EP 1993-924991 19931028, WO 1993-US10121 19931028; EP 684988 A4 EP 1993-924991

FDT US 5433947 A Cont of US 5326561; EP 684988 A1 Based on WO 9413784
PRAI US 1992-990609 19921215; US 1994-249927 19940526
REP 05Jnl.Ref; US 4940840; WO 9003732
IC ICM **A61K037-54**; C12N001-14
ICS A01N043-50; C12N009-24; C12N009-42
AB WO 9413784 A UPAB: 19960205
Antifungal compsn. contains (a) enzyme (I) able to degrade fungal cell walls and (b) a non-enzymatic fungicide (II), at (I): (II) wt. ratio 2-0.5 million:1 Pure enzyme basis). (II) is a sterol synthesis inhibitor or thiol inactivator, not specific to fungal wall membranes. Partic. (I) is pure and is a **chitin** 1,4-beta-chitoendochitinase (I), partic. that from Trichoderma harzianum Strain 1 (ATCC 74058).
USE/ADVANTAGE - The compsns. inhibit replication, germination and growth of fungi, esp. those contg. **chitin** or **1, 3-beta-glucan**, specifically Botrytis cinerea.
For agricultural use they are applied to plants, seeds, soil etc., but also contemplated as generating (I) in the plant or in transgenic endophytic microorganisms. They can also be used in human or veterinary medicine (no further details). (I) and (II) show a synergistic increase in activity, allowing a 100-1000 fold redn. in the amt. of (II) required. For medical use the compsns. are admin. topically or by injection.
Dwg.0/3
FS CPI
FA AB; DCN
MC CPI: B04-L05B; B05-B01B; B06-D03; B07-D09; B14-A04; B14-D02A; B14-S09; C04-L05B; C05-B01B; C06-D03; C07-D09; C14-A04; C14-A06; C14-D02A; C14-S09; D05-C03C; D05-H13
ABEQ US 5326561 A UPAB: 19940817
Liq. compsn. for inhibiting the germination or growth of a fungus comprises (a) a biologically pure fungal cell wall degrading enzyme selected from endo-chitinases, **chitin** 1,4-**beta** -chito-biosidases, **beta**-N-acetyl-glucosaminidases and **glucan** 1,3-**beta** glucosidases, and (b) a non-enzymatic fungicide selected from (i) sterol synthesis inhibiting fungicides and (ii) captan, the non-enzymatic fungicide being present at a concn. to give 4 to less than 95% inhibition of spore germination when used without (a). (a) and (b) are present in a wt. ratio of (a):(b) of 2:1-500,000:1 on a biologically pure enzyme basis.
USE/ADVANTAGE - The compsn. is synergistic and is used for topical or internal application in agriculture or medicine.
Dwg.0/3
ABEQ US 5433947 A UPAB: 19950904
Synergistic antifungal compsn. comprises one or more enzymes that degrade the fungal cell wall, e.g. endochitinases, **chitin**-1,4-**beta**-chitobiosidases, **beta**-N-acetylglucosaminidases and **glucan**-1,3-**beta**- -glucosidases, (2-5000,000 pts.wt); and a fungicidal sterol synthesis-inhibitor (e.g. an azole deriv) and/or captan (1 pt.wt) which in the absence of the enzyme component, is able to provide about 4-95% inhibition of the fungal spore germination.
USE - The prods. inhibit fungal germination and propagation.
ADVANTAGE - The prods. are suitable for medicinal and agricultural applications, and avoid the use of excessive amts. of synthetic chemical pesticides.
Dwg.0/3

L119 ANSWER 12 OF 12 WPIX (C) 2003 THOMSON DERWENT
AN 1991-102035 [14] WPIX
CR 1994-082820 [10]
DNC C1991-043762
TI Prodn. of aq. soluble glucan - by treating glucan particles with acid soln. then alkali soln. and neutralising the soln. obtd.
DC A97 B04 C03 D16
IN EASSON, D D; JAMAS, S; OSTROFF, G R; SPIROS, J

PA (ALPH-N) ALPHA BETA TECHNOLOGY INC; (ALPH-N) ALPHA BETA TECHNOLOGY; (ALPH-N) ALPHA BETA TECHN IN

CYC 42

PI WO 9103495 A 19910321 (199114)* 36p
RW: AT BE CH DE DK ES FR GB IT LU NL SE
W: AT AU BB BG BJ BR CA CF CG CH CM DE DK ES FI GA GB HU JP KP KR LK LU MC MG ML MR MW NL NO RO SD SE SN SU TD TG US

AU 9064411	A	19910408	(199127)			
EP 490995	A1	19920624	(199226) EN	36p	C08B037-00	
R: AT BE CH DE DK ES FR GB IT LI LU NL SE						
JP 05503952	W	19930624	(199330)	10p	C08B037-00	
US 5322841	A	19940621	(199424)		A61K031-715	<--
AU 650626	B	19940630	(199430)		C08B037-00	
US 5488040	A	19960130	(199611)	20p	A61K031-715	<--
US 5532223	A	19960702	(199632)	20p	A61K031-715	<--
US 5633369	A	19970527	(199727)	9p	C07H001-00	
US 5663324	A	19970902	(199741)#	7p	C07H001-00	
US 5811542	A	19980922	(199845)		C07H001-00	
US 5849720	A	19981215	(199906)		A61K031-715	<--

ADT EP 490995 A1 EP 1990-914588 19900906, WO 1990-US5041 19900906; JP 05503952 W JP 1990-513727 19900906, WO 1990-US5041 19900906; US 5322841 A Cont of US 1989-404738 19890908, US 1992-970547 19921102; AU 650626 B AU 1990-64411 19900906; US 5488040 A CIP of US 1989-404738 19890908, CIP of WO 1990-US5041 19900906, CIP of US 1992-838288 19920305, CIP of US 1992-855578 19920323, CIP of US 1992-934015 19920821, US 1993-60418 19930511; US 5532223 A CIP of US 1989-404738 19890908, Cont of WO 1990-US5041 19900906, CIP of US 1992-838288 19920305, CIP of US 1992-855578 19920323, CIP of US 1992-934015 19920821, Cont of US 1993-60418 19930511, US 1995-452971 19950530; US 5633369 A CIP of US 1989-404738 19890908, CIP of WO 1990-US5041 19900906, Cont of US 1992-838288 19920305, Cont of US 1995-432303 19950502, US 1995-464528 19950605; US 5663324 A CIP of US 1989-404738 19890908, Cont of WO 1990-US5041 19900906, Cont of US 1992-838288 19920305, Cont of US 1995-432303 19950501, US 1995-464527 19950605; US 5811542 A CIP of US 1989-404738 19890908, CIP of WO 1990-US5041 19900906, Cont of US 1992-838288 19920305, US 1995-432303 19950502; US 5849720 A Cont of US 1989-404738 19890908, Div ex US 1992-970547 19921102, Cont of US 1994-257062 19940609, US 1995-400488 19950308

FDT EP 490995 A1 Based on WO 9103495; JP 05503952 W Based on WO 9103495; AU 650626 B Previous Publ. AU 9064411, Based on WO 9103495; US 5532223 A Cont of US 5488040; US 5849720 A Div ex US 5322841

PRAI US 1989-404738 19890908; US 1992-970547 19921102; WO 1990-US5041 19900906; US 1995-452971 19950530; US 1995-432303 19950502; US 1995-464528 19950605; US 1995-464527 19950605; US 1994-257062 19940609; US 1995-400488 19950308

REP 5.Jnl.Ref; US 4810646

IC ICM **A61K031-715**; C07H001-00; C08B037-00
ICS **A61K031-71**; C07H001-06; C07H003-00

ICA C12P019-04

AB WO 9103495 A UPAB: 19990127
A process for producing soluble glucan is claimed comprising (a) contacting glucan particles with an acid soln., e.g. a soln. of acetic acid or formic acid, (b) contacting the acid-treated particles with an alkali soln., e.g. 0.1N NaOH, under conditions sufficient to dissolve alkali soluble glucan, (c) sepg. alkali-insoluble particulates and glucan aggregates from the soln. and (d) neutralising the glucan soln. and opt. (e) further purifying the soln. by diafiltration with a pharmaceutically acceptable medium to produce a purified neutral glucan soln.

The glucan particles may be whole glucan particles derived from yeast, e.g. S. cerevisiae R4 (NRRL Y-15903). The soln. obtd. after step (b) may be contacted with a positively-charged medium e.g. DEAE-cellulose, QAE-cellulose or Q-Sepharose (RTM).

Also claimed is aq.-soluble non-derivatised glucan having an average

mol. wt. of 10000-500000 daltons. The soln. pref. contains at least 98 wt.% glucose, less than 0.5 wt.% protein, glycogen and **chitin** and less than 0.1 wt.% lipid. Also claimed is a soln. for parenteral administration to a human or an animal comprising an aq. soluble non-derivatised glucan having an average mol. wt. of 10000-500000 daltons in a pharmaceutically acceptable medium e.g. water, PBS, isotonic saline or dextrose.

USE/ADVANTAGE - The soluble glucan produced can be maintained in a clear soln. when neutralised to pH 7 and equilibrated in a pharmaceutically acceptable medium. The resulting soln. is non-0lj0C n nOnyrOgniC n hg UCgn ig Ort mmUr system enhancer. It can be used to enhance or prime the immune system or for the treatment or prevention of infection in immunocompromised humans or animals.

Dwg.0/4

FS CPI

FA AB

MC CPI: A03-A00A; A12-V01; B04-C02; B12-A01; B12-A06; C04-C02; C12-A01; C12-A06; D05-C08

ABEQ JP 05503952 W UPAB: 19931118

Soluble glucan prodn. comprises (a) contacting glucan particles with an acid soln., e.g. a soln. of acetic acid or formic acid, (b) contacting the acid-treated particles with an alkali soln., e.g. 0.1N NaOH, under conditions sufficient to dissolve alkali soluble glucan, (c) sepg. alkali-insoluble particulates and glucan aggregates from the soln. and (d) neutralising the glucan soln. and opt. (e) further purifying the soln. by diafiltration with a pharmaceutically acceptable medium to produce a purified neutral glucan soln.

The glucan particles may be whole glucan particles derived from yeast, e.g. S. cerevisiae R4 (NRRL Y-15903). The soln. obtd. after step (b) may be contacted with a positively-charged medium e.g. DEAE-cellulose, QAE-cellulose or Q-Sepharose (RTM).

Also claimed are aq.-soluble non-derivatised glucan having an average mol. wt. of 10000-500000 daltons. The soln. pref. contains at least 98 wt.% glucose, less than 0.5 wt.% protein, glycogen and **chitin** and less than 0.1 wt.% lipid; and a soln. for parenteral administration to a human or an animal comprising an aq. soluble non-derivatised glucan having an average mol. wt. of 10000-500000 daltons in a pharmaceutically acceptable medium e.g. water, PBS, isotonic saline or dextrose.

USE/ADVANTAGE - The soluble glucan produced can be maintained in a clear soln. when neutralised to pH 7 and equilibrated in a pharmaceutically acceptable medium. The resulting soln. is non-OljOC n nOnyrOgniC n hg UCgn ig Ort mmUr system enhancer. It can be used to enhance or prime the immune system or for the treatment or prevention of infection in immunocompromised humans or animals.

Dwg.0/4

ABEQ US 5488040 A UPAB: 19960315

A method for stimulating platelet proliferation, comprising parenterally administering to a mammal a platelet stimulating amount of a composition comprising an underivatised, aqueous soluble **beta(1-3) glucan** in a physiologically acceptable vehicle, the underivatised, aqueous soluble **beta(1-3) glucan** preparation being prepared by:

a) contacting **beta(1-3) glucan** particles with an acid solution;

b) contacting the acid-treated particles from step a) with an alkali solution under conditions sufficient to dissolve alkali-soluble glucan;

c) separating alkali-insoluble particulates and glucan aggregates from the solution of step b); and

d) neutralizing the glucan solution obtained from step c).

Dwg.0/8

ABEQ US 5532223 A UPAB: 19960819

A method for stimulating platelet proliferation comprising administering to an animal or human a platelet stimulating amount of an non-derivatised,

aqueous soluble **beta(1-3) glucan**
in a triple helix conformation.
Dwg.0/8
ABEQ US 5633369 A UPAB: 19970702
Producing un-derivatised, aqueous soluble **beta (1-3) glucan** having immunostimulating properties, comprises:
(a) contacting a suspension of aqueous insoluble **beta (1-3) glucan** with an organic acid to solubilise the **glucan** and form an acid-soluble and acid-insoluble **glucan** mixture;
(b) contacting the acid-soluble or acid insoluble portion of the glucans with an alkali solution to dissolve alkali-soluble glucan;
(c) removing alkali-insoluble glucans from the solution of step (b), and
(d) neutralizing the solution containing the alkali-soluble **beta (1-3) glucan** obtained from step (c).
Dwg.0/4
ABEQ US 5663324 A UPAB: 19971013
A process for producing underivatised, aqueous soluble **beta(1-3) glucan** having immunostimulating properties, comprising the steps of: a. contacting a suspension of aqueous insoluble **beta(1-3) glucan** with an organic acid to solubilize said **glucan** thereby forming an acid-soluble and acid-insoluble **glucan** mixture; b. contacting the acid-soluble portion or acid-insoluble portion of the **glucan** with an alkali solution to dissolve alkali-soluble **glucan**; c. removing alkali-insoluble **glucans** from the solution of step (b); d. neutralising the solution containing the alkali-soluble **glucan** obtained from step (c); and e. isolating an aqueous-soluble **beta (1-3) glucan** by size fractionation to produce an underivatised, aqueous soluble **beta(1-3) glucan** that is suitable for parenteral administration.
Dwg.0/4

=> fil dpci
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FILE LAST UPDATED: 11 MAR 2003 <20030311/UP>
PATENTS CITATION INDEX, COVERS 1973 TO DATE

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L120 ANSWER 1 OF 1 DPCI (C) 2003 THOMSON DERWENT
AN 2000-657193 [64] DPCI
DNC C2000-198933
TI Cosmetic compositions containing water-soluble beta-glucan and chitosan compounds, useful as skin and hair care products and sunscreen agents.
DC A11 A96 B07 D16 D21
IN ANSMANN, A; EISFELD, W; ENGSTAD, R E; FABRY, B; GRIESBACH, U; WACHTER, R
PA (BIOT-N) BIOTEC ASA; (COGN-N) COGNIS DEUT GMBH
CYC 26
PI DE 19911056 A1 20000921 (200064)* 14p A61K007-00
WO 2000054738 A1 20000921 (200064) DE A61K007-06
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

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        W: AU CA CN JP KR NZ US
    AU 2000029175 A  20001004 (200101)              A61K007-06
    EP 1165020    A1 20020102 (200209)  DE          A61K007-06
        R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
    KR 2002000150 A  20020104 (200244)              A61K007-00
    CN 1347302    A  20020501 (200252)              A61K007-06
    JP 2002539144 W  20021119 (200281)       34p    A61K007-00
ADT DE 19911056 A1 DE 1999-19911056 19990312; WO 2000054738 A1 WO
    2000-EP1837 20000303; AU 2000029175 A AU 2000-29175 20000303; EP
    1165020 A1 EP 2000-907664 20000303, WO 2000-EP1837 20000303; KR
    2002000150 A WO 2000-EP1837 20000303, KR 2001-711584 20010912;
    CN 1347302 A CN 2000-806361 20000303; JP 2002539144 W JP 2000-604816
    20000303, WO 2000-EP1837 20000303
FDT AU 2000029175 A Based on WO 200054738; EP 1165020 A1 Based on WO
    200054738; KR 2002000150 A Based on WO 200054738; JP 2002539144 W Based on
    WO 200054738
PRAI DE 1999-19911056 19990312
IC  ICM  A61K007-00; A61K007-06
    ICS  A61K007-075; A61K007-08; A61K007-42; A61K007-48; A61K007-50;
         C11D003-38
FS  CPI

EXF EXAMINER'S FIELD OF SEARCH   UPE: 20020917
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IC  DE 19911056   A1 20000921
    A61K007-0

CTCS CITATION COUNTERS
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PNC.DX    8              Cited Patents Count (by examiner)
IAC.DI    0              Cited Issuing Authority Count (by inventor)
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CRC.X     11             Cited Literature References Count (by examiner)

CDP CITED PATENTS        UPD: 20020917
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    Cited by Examiner
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    CITING PATENT    CAT    CITED PATENT     ACCNO
    ------------------------------------------------------------
    DE 19911056   A1        DE 19537509   A1 1997-213948/20
                  PA:  (EGST-N) EGSTO-PHARM PHARM PRAEPARATE GMBH
                  IN:  FABER, W; KRAINBRING, V
                       JP 3204804    A  1991-306708/42
                  PA:  (HARM) HARIMA KASEI KK; (MITK) MITSUI TOATSU CHEM INC
                       WO 9530022    A1 1995-393092/50
                  PA:  (PHIP) PHILLIPS PETROLEUM CO; (BIOT-N)
                       BIOTEC-MACKZYMAL AS
                  IN:  ENGSTAD, R; KORTNER, F; ROBERTSEN, B; RORSTAD, G
                       WO 9840082    A1 1998-496742/43
                  PA:  (HENK) HENKEL KGAA
                  IN:  EGGENSPERGER, H; GRIESBACH, U; WEIMANN, E; WIEMANN, E
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WO 200054738 A A EP 377091 A 1990-199131/26
PA: (NEST) SOC PROD NESTLE SA
IN: LEUBA, J; LINK, H; STOESSEL, P; VIRET, J
A GB 2286530 A 1995-277133/37
PA: (CIBA) CIBA SPECIALTY CHEM HOLDING INC; (CIBA) CIBA GEIGY AG; (CIBA) CIBA SC HOLDING AG; (CIBA) CIBA SPECIALTY CHEM CORP
IN: FANKHAUSER, P; MAIER, T
WO 9530022 A 1995-393092/50
PA: (PHIP) PHILLIPS PETROLEUM CO; (BIOT-N) BIOTEC-MACKZYMAL AS
IN: ENGSTAD, R; KORTNER, F; ROBERTSEN, B; RORSTAD, G
WO 9840082 A 1998-496742/43
PA: (HENK) HENKEL KGAA
IN: EGGENSPERGER, H; GRIESBACH, U; WEIMANN, E; WIEMANN, E
WO 200054738 A1 A EP 377091 A 1990-199131/26
PA: (NEST) SOC PROD NESTLE SA
IN: LEUBA, J; LINK, H; STOESSEL, P; VIRET, J
A GB 2286530 A 1995-277133/37
PA: (CIBA) CIBA SPECIALTY CHEM HOLDING INC; (CIBA) CIBA GEIGY AG; (CIBA) CIBA SC HOLDING AG; (CIBA) CIBA SPECIALTY CHEM CORP
IN: FANKHAUSER, P; MAIER, T
WO 9530022 A 1995-393092/50
PA: (PHIP) PHILLIPS PETROLEUM CO; (BIOT-N) BIOTEC-MACKZYMAL AS
IN: ENGSTAD, R; KORTNER, F; ROBERTSEN, B; RORSTAD, G
WO 9840082 A 1998-496742/43
PA: (HENK) HENKEL KGAA
IN: EGGENSPERGER, H; GRIESBACH, U; WEIMANN, E; WIEMANN, E

REN LITERATURE CITATIONS UPR: 20020917

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DE 19911056	A1	Kosmetikjahrbuch 1998, Verlag fuer chemische Industrie H. Ziolkowsky GmbH, Augsburg, S. 87-89
DE 19911056	A1	ARTURSSON, P. u.a.: "Biodegradable Microspheres V: Stimulation of Macrophages with Microparticles Made of Various Polysaccharides" In: Journal of. Pharmaceutical Sciences 1987, Vol. 76, S. 127-133
DE 19911056	A1	Onsoyen, E. u.a.: "Adding Benefits to Cosmetic Formulations by Tailormade Chitosans" In:SOEFW 117, 633 ff(1991)
WO 200054738	A	ONSOYEN E ET AL: "ADDING BENEFITS TO COSMETIC FORMULATIONS BY TAILORMADE CHITOSANS" SOFW-JOURNAL SEIFEN, OELE, FETTE, WACHSE,DE,VERLAG FUR CHEMISCHE INDUSTRIE, H. ZIOLKOWSKY K.G. AUGSBURG, Bd. 117, Nr. 16, 24. Oktober 1991 (1991-10-24), Seiten 633-637, XP000267861 ISSN: 0942-7694
WO 200054738	A	F ZUeLLI ET AL: "Photoprotective effects of CM-glucan on cultured human skin cells" EURO-COSMETICS,DE,HEIDELBERG, Bd. 11, Nr. 11, November 1995 (1995-11), Seiten 46,48-51, XP002090000 ISSN: 0944-8942

WO 200054738 A F ZUeLLI ET AL: "CM-Glucan a new yeast polysaccharide for cosmetic use" COSMETICS AND TOILETRIES MANUFACTURE WORLDWIDE,GB,BUSHEY HEATH, 1994, Seiten 131,133-134,136-136, XP002090001 ISSN: 1358-2453

WO 200054738 A1 ONSOYEN E ET AL: "ADDING BENEFITS TO COSMETIC FORMULATIONS BY TAILORMADE CHITOSANS" SOFW-JOURNAL SEIFEN, OELE, FETTE, WACHSE,DE,VERLAG FUR CHEMISCHE INDUSTRIE, H. ZIOLKOWSKY K.G. AUGSBURG, Bd. 117, Nr. 16, 24. Oktober 1991 (1991-10-24), Seiten 633-637, XP000267861 ISSN: 0942-7694

WO 200054738 A1 F ZUeLLI ET AL: "Photoprotective effects of CM-glucan on cultured human skin cells" EURO-COSMETICS,DE,HEIDELBERG, Bd. 11, Nr. 11, November 1995 (1995-11), Seiten 46,48-51, XP002090000 ISSN: 0944-8942

WO 200054738 A1 F ZUeLLI ET AL: "CM-Glucan a new yeast polysaccharide for cosmetic use" COSMETICS AND TOILETRIES MANUFACTURE WORLDWIDE,GB,BUSHEY HEATH, 1994, Seiten 131,133-134,136-136, XP002090001 ISSN: 1358-2453

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    http://www.derwent.com/userguides/dwpi_guide.html <<<

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L121 ANSWER 1 OF 6  WPIX (C) 2003 THOMSON DERWENT
AN   1998-496742 [43]   WPIX
DNC  C1998-149714
TI   Use of water-soluble beta-glucan in cosmetic or dermatological skin care
     compositions - to treat e.g. wrinkles, UV erythema, psoriasis vulgaris,
     dandruff, seborrhoeic dermatitis, seborrhoea sicca or oleosa and
     ichthyosis.
DC   B04 D21
IN   EGGENSPERGER, H; GRIESBACH, U; WEIMANN, E; WIEMANN, E
PA   (HENK) HENKEL KGAA
CYC  19
PI   DE 19710368   A1 19980917 (199843)*       7p    A61K007-48
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WO 9840082 A1 19980917 (199843) DE A61K031-715 <--
RW: AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE
W: JP US
ADT DE 19710368 A1 DE 1997-19710368 19970313; WO 9840082 A1 WO 1998-EP1202 19980304
PRAI DE 1997-19710368 19970313
IC ICM A61K007-48; A61K031-715
ICS A61K007-42; A61K031-70
AB DE 19710368 A UPAB: 19981028
Use of water-soluble beta -glucans (I) in compositions for treating the skin, counteracting skin ageing and protecting against the sun, is new.
USE - (I) stimulate the immune system of the skin and reduce wrinkle formation. (I) are used to treat UV-erythema, psoriasis, dandruff, seborrhoeic dermatitis, seborrhoea sicca or oleosa, psoriasis vulgaris and ichthyosis. (I) are used in anti-wrinkle or anti-cellulite creams or sunscreen lotions or in ointments.
ADVANTAGE - (I) produce special cytokines in the Langerhans cells of the deep skin layers to cause immunomodulation. (I) have no significant side effects and are toxicologically and dermatologically acceptable.
Dwg.0/0
FS CPI
FA AB; DCN
MC CPI: B04-C02F; B14-G01; B14-N17; B14-R01; B14-R02; B14-R05; D08-B09A

L121 ANSWER 2 OF 6 WPIX (C) 2003 THOMSON DERWENT
AN 1997-213948 [20] WPIX
DNC C1997-069234
TI Prods. for treating irritated skin - contain zinc pyrithione alone or in combination with a urea salve.
DC B03 B05 D21 E12 E16
IN FABER, W; KRAINBRING, V
PA (EGST-N) EGSTO-PHARM PHARM PRAEPARATE GMBH
CYC 1
PI DE 19537509 A1 19970410 (199720)* 3p A61K007-48 <--
ADT DE 19537509 A1 DE 1995-19537509 19950927
PRAI DE 1995-19537509 19950927
IC ICM A61K007-48
AB DE 19537509 A UPAB: 19970516
Skin care prod. - comprises a microemulsion contg. zinc pyrithione.
Combination skin care systems contg. one of these prods. and a urea salve are also claimed.
Pref. the prod. contains 0.1 - 1 wt.% Zn pyrithione, 0.02 - 1 wt.% modified water-soluble glucan and 1 - 5 wt.% dexpanthenol. Esp. the prod. comprises 0.2 wt.% Zn pyrithione, 0.16 wt.% modified water-soluble glucan, 2 wt.% dexpanthenol, 4 wt.% Tween 80 (RTM : polyoxyethylene sorbitan monooleate), 6 wt.% Pluronic PE/L31 (RTM : ethylene / propylene oxide block copolymer-based polyalkylene glycol), 19.8 wt.% isopropyl alcohol, 10 wt.% dimethyl isosorbide, 10.4 wt.% propylene glycol, 0.8 wt.% ethanol and 46.64 wt.% H2O.The prod. is partic. formulated as a spray.
USE - Used for treating irritated skin which is e.g. itchy, extremely dry or suffering from psoriasis or neurodermatitis.
ADVANTAGE - Prod. quickly penetrates the lower region of the epidermis and therefore gives rapid soothing of the skin ailment.
Dwg.0/0
FS CPI
FA AB; DCN
MC CPI: B05-A03A; B07-D04; B10-A13C; B14-N17; D08-B09A; E05-L03D; E10-A13B2

L121 ANSWER 3 OF 6 WPIX (C) 2003 THOMSON DERWENT
AN 1995-393092 [50] WPIX
DNC C1995-169377
TI Prepn. of glucan prods. which are useful for immune stimulation - comprising treatment of glucan from yeast cells with b-(1-6)-glucanase.

DC B04 D16
IN ENGSTAD, R; KORTNER, F; ROBERTSEN, B; RORSTAD, G
PA (BIOT-N) BIOTEC-MACKZYMAL AS; (BIOT-N) BIOTEC PHARMACON ASA; (PHIP) PHILLIPS PETROLEUM CO
CYC 65
PI WO 9530022 A1 19951109 (199550)* EN 26p C12P019-14 <--
RW: AT BE CH DE DK ES FR GB GR IE IT KE LU MC MW NL OA PT SD SE SZ UG
W: AM AT AU BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU IS JP KE KG KP KR KZ LK LR LT LU LV MD MG MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TT UA UG US UZ VN
NO 9401581 A 19951030 (199551) C12P019-18
AU 9521464 A 19951129 (199609) C12P019-14
FI 9604339 A 19961028 (199704) C12P000-00
EP 759089 A1 19970226 (199714) EN C12P019-14
R: AT BE CH DE DK ES FR GB GR IT LI LU NL SE
NO 300692 B1 19970707 (199734) C08B037-00
JP 09512708 W 19971222 (199810) 22p C12P019-16
AU 703251 B 19990325 (199924) C12P019-14
EP 759089 B1 20020828 (200264) EN C12P019-14
R: AT BE CH DE DK ES FR GB GR IT LI LU NL SE
DE 69527955 E 20021002 (200273) C12P019-14
ADT WO 9530022 A1 WO 1995-IB265 19950418; NO 9401581 A NO 1994-1581 19940429; AU 9521464 A AU 1995-21464 19950418; FI 9604339 A WO 1995-IB265 19950418, FI 1996-4339 19961028; EP 759089 A1 EP 1995-914485 19950418, WO 1995-IB265 19950418; NO 300692 B1 NO 1994-1581 19940429; JP 09512708 W JP 1995-528093 19950418, WO 1995-IB265 19950418; AU 703251 B AU 1995-21464 19950418; EP 759089 B1 EP 1995-914485 19950418, WO 1995-IB265 19950418; DE 69527955 E DE 1995-627955 19950418, EP 1995-914485 19950418, WO 1995-IB265 19950418
FDT AU 9521464 A Based on WO 9530022; EP 759089 A1 Based on WO 9530022; NO 300692 B1 Previous Publ. NO 9401581; JP 09512708 W Based on WO 9530022; AU 703251 B Previous Publ. AU 9521464, Based on WO 9530022; EP 759089 B1 Based on WO 9530022; DE 69527955 E Based on EP 759089, Based on WO 9530022
PRAI NO 1994-1581 19940429
REP 05Jnl.Ref; EP 466037; JP 54138115; US 5028703
IC ICM C08B037-00; C12P000-00; C12P019-14; C12P019-16; C12P019-18
ICS A23K001-16
ICI C12P019-14, C12R001:01, C12R001:645, C12R001:8
AB WO 9530022 A UPAB: 19951215
The following are claimed:(A) the prepn. of glucan prods. from yeast, comprising contacting a branched beta-(1-3)-glucan (having beta-(1-3)-linked and beta-(1-6)-linked chains) with a beta-(1-6)-glucanase, under conditions such that the resulting glucan is comprised of beta-(1-3)-linked glucose units and is free of beta-(1-6)-linked chains;(B) insoluble particulate yeast glucan (esp. from the yeast family Saccharomyces, pref. S. cerevisiae) comprising a branched beta-(1-3)-glucan with beta-(1-3)-linked side-chains being attached by a beta-(1-6) linkage, the prod. being free of beta-(1-6)-linked chains;(C) prodn. of a solubilised beta-(1-3) glucan particle from yeast (esp. from the yeast family Saccharomyces, pref. S. cerevisiae), comprising contacting an insoluble glucan (having a backbone of beta-(1-3)-linked glucose units with 1 beta-(1-3)-linked side chain of 1 glucose unit attached to the backbone) from the yeast family Saccharomyces with a solubilising agent;(D) the solubilised beta-(1-3)-glucan prod. of process (C) above;(E) prepn. of feed glucan prods. from yeast (esp. from the yeast family Saccharomyces, pref. S. cerevisiae), comprising contacting a feed grade yeast glucan (which is a branched beta-(1-3)-glucan having beta-(1-3)-linked and beta-(1-6)-linked chains) with a beta-(1-3)-glucanase under conditions such that the resulting glucan is comprised of beta-(1-3)-linked glucose units and is free of beta-(1-6)-linked chains, and(F) the prod. of process (E) above, which comprises a branched beta-(1-3)-feed grade glucan with beta-(1-3)-linked side-chains being attached by a beta-(1-6)-linkage and being free of beta-(1-6)-linked chains.

USE - The new glucan prods. may be used to stimulate host animal immune systems, e.g. the immune systems of fish and other animals. They can be used as ingredients in conventional animal feeds and the solubilised prods. are esp. useful for enhancing the activity of veterinary vaccines.
Dwg.0/0
FS CPI
FA AB
MC CPI: B04-C02F; D05-A02C

L121 ANSWER 4 OF 6 WPIX (C) 2003 THOMSON DERWENT
AN 1995-277133 [37] WPIX
DNC C1995-125555
TI Cosmetic compsn. used as e.g. massage cream - contains beta-1,3-glucan.
DC A96 B07 D21 E19
IN FANKHAUSER, P; MAIER, T
PA (CIBA) CIBA SPECIALTY CHEM HOLDING INC; (CIBA) CIBA GEIGY AG; (CIBA) CIBA SC HOLDING AG; (CIBA) CIBA SPECIALTY CHEM CORP
CYC 63
PI GB 2286530 A 19950823 (199537)* 13p A61K007-00 <--
WO 9522310 A1 19950824 (199539) EN 14p A61K007-48
RW: AT BE CH DE DK ES FR GB GR IE IT KE LU MC MW NL OA PT SD SE SZ
W: AM AU BB BG BR BY CA CN CZ EE FI GE HU JP KG KP KR KZ LK LR LT LV MD MG MN MX NO NZ PL RO RU SI SK TJ TT UA US UZ VN
ZA 9501320 A 19950927 (199544) 13p A61K000-00
AU 9516649 A 19950904 (199549) A61K007-48
EP 746307 A1 19961211 (199703) EN A61K007-48
R: AT BE CH DE DK ES FR GB IT LI NL SE
JP 09508909 W 19970909 (199746) 16p A61K007-00
BR 9506829 A 19970930 (199748) A61K007-48
NZ 279497 A 19971024 (199749) A61K007-075
AU 686327 B 19980205 (199813) A61K007-48
KR 97701036 A 19970317 (199813) A61K007-48
MX 9603434 A1 19970501 (199823) A61K007-48
GB 2286530 B 19980715 (199830) A61K007-00 <--
US 5814341 A 19980929 (199846) A61K009-16
IL 112669 A 20000601 (200045) A61K007-075
MX 198237 B 20000824 (200216) A61K007-06
EP 746307 B1 20021106 (200281) EN A61K007-48
R: AT BE CH DE DK ES FR GB IT LI NL SE
DE 69528755 E 20021212 (200306) A61K007-48

structure shows 1,6 linkage

ADT GB 2286530 A GB 1995-2787 19950214; WO 9522310 A1 WO 1995-EP408 19950206; ZA 9501320 A ZA 1995-1320 19950217; AU 9516649 A AU 1995-16649 19950206; EP 746307 A1 EP 1995-908265 19950206, WO 1995-EP408 19950206; JP 09508909 W JP 1995-521544 19950206, WO 1995-EP408 19950206; BR 9506829 A BR 1995-6829 19950206, WO 1995-EP408 19950206; NZ 279497 A NZ 1995-279497 19950206, WO 1995-EP408 19950206; AU 686327 B AU 1995-16649 19950206; KR 97701036 A WO 1995-EP408 19950206, KR 1996-704496 19960817; MX 9603434 A1 MX 1996-3434 19960816; GB 2286530 B GB 1995-2787 19950214; US 5814341 A WO 1995-EP408 19950206, US 1996-693061 19960812; IL 112669 A IL 1995-112669 19950216; MX 198237 B MX 1996-3434 19950206; EP 746307 B1 EP 1995-908265 19950206, WO 1995-EP408 19950206; DE 69528755 E DE 1995-628755 19950206, EP 1995-908265 19950206, WO 1995-EP408 19950206
FDT AU 9516649 A Based on WO 9522310; EP 746307 A1 Based on WO 9522310; JP 09508909 W Based on WO 9522310; BR 9506829 A Based on WO 9522310; NZ 279497 A Based on WO 9522310; AU 686327 B Previous Publ. AU 9516649, Based on WO 9522310; KR 97701036 A Based on WO 9522310; US 5814341 A Based on WO 9522310; EP 746307 B1 Based on WO 9522310; DE 69528755 E Based on EP 746307, Based on WO 9522310
PRAI GB 1994-3153 19940218
REP 8.Jnl.Ref; EP 504673; GB 2176795; JP 0223525; JP 3002202; JP 62205008; US 3507290; US 3659025; US 5158772; US 946450
IC ICM A61K000-00; A61K007-00; A61K007-06; A61K007-075; A61K007-48;

A61K009-16
ICS A61K007-16; A61K047-36
AB GB 2286530 A UPAB: 19970612
Cosmetic compsn. comprises: (a) a cosmetically acceptable carrier; and (b) 0.05-3 wt.% beta-1,3-glucan (I) of mean mol. wt. 105-10x106.
USE - The compsn. is used as a massage cream or an eye prepn. or is used in conditioners, shampoos, skin care formulations, dentifrices and mucosal lubricants, esp. eye drop, vaginal cream or gel, dental gel, denture fixation aid, or toothpaste.
Dwg.0/0
FS CPI
FA AB; DCN
MC CPI: A12-V04; B04-B01B; B04-B01C; B04-C02F; B10-C04E; B10-E04D; B12-M02B; B12-M03; B14-N06B; B14-N07; B14-N17; B14-R01; B14-R02; D08-A02; D08-A03; D08-B04; D08-B08; D08-B09; E10-C04H; E10-C04L; E10-E04L; E10-E04M2; E10-E04M3; E10-E04M4; E10-G02G1; E10-G02G2; E10-G02H1; E10-G02H2

L121 ANSWER 5 OF 6 WPIX (C) 2003 THOMSON DERWENT
AN 1991-306708 [42] WPIX
DNC C1991-132874
TI Skin cosmetic material having good moisture retention - contains carboxymethylated derivs. of beta-1,3-glucan or its salt(s), for skin cosmetic materials for remedy for rough skin.
DC D21
PA (HARM) HARIMA KASEI KK; (MITK) MITSUI TOATSU CHEM INC
CYC 1
PI JP 03204804 A 19910906 (199142)* <--
ADT JP 03204804 A JP 1989-344846 19891228
PRAI JP 1989-344846 19891228
IC A61K007-00
AB JP 03204804 A UPAB: 19930928
Skin cosmetic material contains 0.01-70.0% of a carboxymethylated deriv(s). of beta-1,3-glucan of formula (I) or its salt(s). The deriv. is prepd. by substituting the hydrogens of the hydroxyl gps. at positions, 2,4, and 6 of glucose units at a substitn. ratio of 0.3-34%.
USE - For providing a material having good moisture retention, smoothness, and a good thickening effect and thus being suitable for skin cosmetic materials for remedying rough skin.
0/3
FS CPI
FA AB
MC CPI: D08-B09A

L121 ANSWER 6 OF 6 WPIX (C) 2003 THOMSON DERWENT
AN 1990-199131 [26] WPIX
DNC C1990-119007
TI Cosmetic compsn. prepn. - by incorporation of chitosan as preservative.
DC A96 B04 D21
IN LEUBA, J; LINK, H; STOESSEL, P; VIRET, J
PA (NEST) SOC PROD NESTLE SA
CYC 20
PI PT 92414 A 19900531 (199026)*
NO 8904588 A 19900625 (199031)
DK 8905262 A 19900529 (199033)
JP 02193906 A 19900731 (199036)
EP 377091 A 19900711 (199037) <--
R: AT BE CH DE ES FR GB GR IT LI LU NL SE
ZA 8908233 A 19900829 (199039)
CH 675535 A 19901015 (199046)
US 5057542 A 19911015 (199144)
EP 377091 B1 19930414 (199315) FR 13p A61K007-48 <--
R: AT BE CH DE ES FR GB GR IT LI LU NL SE

DE 68906011 E 19930519 (199321) A61K007-48
ES 2054979 T3 19940816 (199434) A61K007-48
RU 2028138 C1 19950209 (199537) 9p A61K007-00
ADT PT 92414 A PT 1989-92414 19891127; JP 02193906 A JP 1989-302304 19891122; EP 377091 A EP 1989-119479 19891020; ZA 8908233 A ZA 1989-8233 19891030; US 5057542 A US 1989-428882 19891030; EP 377091 B1 EP 1989-119479 19891020; DE 68906011 E DE 1989-606011 19891020, EP 1989-119479 19891020; ES 2054979 T3 EP 1989-119479 19891020; RU 2028138 C1 SU 1989-4742494 19891127
FDT DE 68906011 E Based on EP 377091; ES 2054979 T3 Based on EP 377091
PRAI CH 1988-4418 19881128
REP 2.Jnl.Ref; EP 161212; JP 62083877; JP 63290808
IC ICM A61K007-48
FS CPI
FA AB
MC CPI: A10-E09; A12-V01; B04-C02E3; B12-L02; B12-M06; D08-B11
ABEQ EP 377091 B UPAB: 19930928
Cosmetic compsns. contain chitosan (I) with a molecular wt. of 3000-700,000.

(I) is derived from shrimp chitinm and has a molecular wt. of 120,000-450,000 and a degree of deacetylation of 70-95%. (I) is added to cosmetic compsns. in an amt. of 50-5000 ppm in the form of an aq.. soln. with a pH belowa 6.2 (esp, 5-55), or an aq.. suspension, or a powder prepd. from an aq.. dispersion of (I) by sonication, centrifugation and freeze-drying.

ADVANTAGE - (I) is effective as an antimicrobial preservative at low concn. (First major country equivalent to PT--92414-A)
0/0
ABEQ US 5057542 A UPAB: 19930928
Cosmetic prepn. contains chitosan in polymeric form having mol wt. 120,000-450,000 in amt. 50-5000 micro-g per g of prepn. Chitosan is deacetylation prod. of chitin in amt. 70-95%.

Pref. chitosan comprises its polycationic form.

USE/ADVANTAGE - Microorganism growth in prod. is inhibited. Chitosan can be added as an aq soln. of pH below pH6.2 or as a powder in aq. suspension etc.

=> fil hcaplus
FILE 'HCAPLUS' ENTERED AT 14:26:18 ON 12 MAR 2003

FILE COVERS 1907 - 12 Mar 2003 VOL 138 ISS 11
FILE LAST UPDATED: 11 Mar 2003 (20030311/ED)

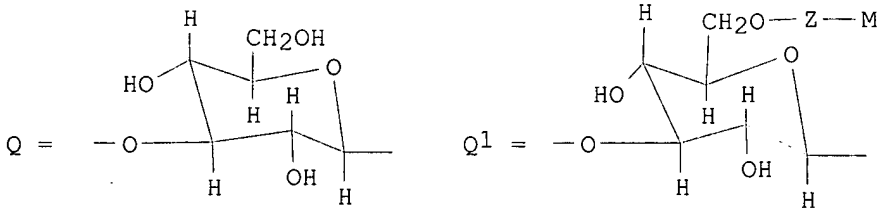
This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d all tot

L127 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2003 ACS
AN **1998:112666** HCAPLUS
DN **128:181799**
TI Manufacture of carboxymethyl glucan for use in pharmaceutical and cosmetic formulations
IN Zuelli, Fred; Suter, Franz
PA Mibelle A.-G. Cosmetics, Switz.
SO Ger. Offen., 22 pp.
CODEN: GWXXBX
DT Patent
LA German
IC ICM C08B037-00
ICS A61K031-725; A61K007-00; A61K007-48
ICA G01N030-00; G01N021-76
ICI C12P019-04, C12R001-645
CC 44-5 (Industrial Carbohydrates)
Section cross-reference(s): 62, 63
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19730542	A1	19980212	DE 1997-19730542	19970717
	EP 819703	A2	19980121	EP 1997-112307	19970717
	EP 819703	A3	19991222		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	EP 1197216	A1	20020417	EP 2001-128699	19970717
	R: CH, DE, DK, FR, GB, LI, SE, FI				
	US 6342486	B1	20020129	US 1997-896926	19970718
PRAI	DE 1996-19629117	A1	19960719		
	EP 1997-112307	A3	19970717		

GI



AB H2O-sol. glucan ethers comprising monomer units Q and Q1 (Z = CH2CO2, CH2CH2CO2, CHMeCO2, CH2CH2SO3; M = H, alkali metal, alk. earth metal) linked through 1,3-.beta.-glucosidic bonds were manufd. by etherification of 3-.beta.-glucan with aq. ClCH2CO2Na in Me2CHOH suspension, in presence of aq. NaOH. Thus, a suspension of 1 kg glucan in 20 L Me2CHOH was treated with 2 kg of 30% aq. NaOH over 16 h at 16-22.degree., the solids were allowed to settle, 8 L supernatant was decanted and replaced with 8 L Me2CHOH, the mixt. was warmed to 60.degree., a soln. of 1.5 kg ClCH2CO2Na in 1.5 kg H2O was added and the whole was heated for 2.5 h at 60.degree. to give 1.3 kg carboxymethyl glucan Na salt with substitution degree 0.75 .+-. 0.1. Several skin cream formulations were prepd. and tested, e.g., for treatment of neurodermatitis and psoriasis.
ST glucan etherification chloroacetate; carboxymethyl glucan manuf skin disorder treatment; neurodermatitis treatment carboxymethyl glucan; psoriasis treatment carboxymethyl glucan
IT Skin, disease

(aging; manuf. of carboxymethyl glucan for use in pharmaceutical and cosmetic formulations)
IT Fats and Glyceridic oils, uses
RL: BUU (Biological use, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)
(almond; manuf. of carboxymethyl glucan for use in pharmaceutical and cosmetic formulations)
IT Fats and Glyceridic oils, uses
RL: BUU (Biological use, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)
(avocado; manuf. of carboxymethyl glucan for use in pharmaceutical and cosmetic formulations)
IT Cosmetics
Psoriasis
Skin preparations (pharmaceutical)
Wound healing
(manuf. of carboxymethyl glucan for use in pharmaceutical and cosmetic formulations)
IT Jojoba oil
Phospholipids, uses
RL: BUU (Biological use, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)
(manuf. of carboxymethyl glucan for use in pharmaceutical and cosmetic formulations)
IT Dermatitis
(neurodermatitis; manuf. of carboxymethyl glucan for use in pharmaceutical and cosmetic formulations)
IT Fats and Glyceridic oils, uses
RL: BUU (Biological use, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)
(vegetable, calendula; manuf. of carboxymethyl glucan for use in pharmaceutical and cosmetic formulations)
IT 3926-62-3, Sodium chloroacetate
RL: RCT (Reactant); RACT (Reactant or reagent)
(etherification with glucan; manuf. of carboxymethyl glucan for use in pharmaceutical and cosmetic formulations)
IT 9012-72-0, Glucan
RL: RCT (Reactant); RACT (Reactant or reagent)
(etherification with sodium chloroacetate; manuf. of carboxymethyl glucan for use in pharmaceutical and cosmetic formulations)
IT 203133-26-0P
RL: IMF (Industrial manufacture); NUU (Other use, unclassified); PREP (Preparation); USES (Uses)
(manuf. of carboxymethyl glucan for use in pharmaceutical and cosmetic formulations)

L127 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2003 ACS
AN 1991:639273 HCAPLUS
DN 115:239273
TI Chitosan: cosmetic applications
AU **Onsoyen, Edvar**
CS Protan Biopolym., Norway
SO Parfums, Cosmetiques, Aromes (**1991**), 97, 85-6
CODEN: PCARDV; ISSN: 0337-3029
DT Journal; General Review
LA French
CC 62-0 (Essential Oils and Cosmetics)
AB A review with no refs.
ST review chitosan cosmetic
IT Cosmetics
(chitosan for)
IT 9012-76-4, Chitosan
RL: BIOL (Biological study)

(in cosmetics)

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=> d his

     (FILE 'HOME' ENTERED AT 13:19:05 ON 12 MAR 2003)
                SET COST OFF

     FILE 'REGISTRY' ENTERED AT 13:19:17 ON 12 MAR 2003
L1             2 S (CHITIN OR CHITOSAN)/CN
                 SEL RN
L2          1022 S E1-E2/CRN
L3          3306 S CHITIN OR CHITOSAN
L4          2282 S L3 NOT L1,L2
L5           725 S L4 NOT (CHITINASE OR SQL/FA)
L6           260 S L5 AND NC>=2
L7           465 S L5 NOT L6
                 E .BETA.-(1-3)-GLUCAN/CN
L8             1 S E8
                 E .BETA.-D-GLUCAN, (1.FWDARW.3)-/CN
L9             2 S E3
L10            1 S L9 NOT 9008-22-4
L11            1 S L9 NOT L10
                 SEL RN
L12            9 S E1/CRN
                 SEL RN L10
L13           46 S E2/CRN
L14            1 S L13 AND L2-L7
L15           12 S L2-L7 AND GLUCAN
L16            9 S L15 AND GLUCAN/INS.HP
L17            5 S L16 NOT (ZYMOLYASE OR SCLEROGLUCAN OR PROPANETRIOL OR POTASSI

     FILE 'HCAOLD' ENTERED AT 13:26:25 ON 12 MAR 2003
L18            0 S L17

     FILE 'HCAPLUS' ENTERED AT 13:26:29 ON 12 MAR 2003
L19           12 S L17

     FILE 'USPATFULL, USPAT2' ENTERED AT 13:27:08 ON 12 MAR 2003
L20            0 S L17

     FILE 'HCAPLUS' ENTERED AT 13:27:22 ON 12 MAR 2003
L21        15329 S L1
L22        22387 S CHITIN OR CHITOSAN
L23        22550 S L21,L22
L24         1163 S L10
L25          686 S 1(1W)3 BETA D GLUCAN
L26         1069 S BETA D GLUCAN (L) 1(1W)3
L27         1050 S BETA 1 3 GLUCAN
L28          294 S 1 3 BETA GLUCAN
L29         2714 S L24-L28
L30          217 S L23 AND L29
                 E GRIESBACH U/AU
L31           26 S E3,E5
                 E WACHTER R/AU
L32          142 S E3-E5,E15
                 E ANSMANN A/AU
L33          158 S E3-E6
                 E FABRY B/AU
L34          243 S E3,E7
                 E EISFELD W/AU
L35           34 S E3,E4
                 E ENGSTAD R/AU
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L36          20 S E3-E6
L37           5 S L30 AND L31-L36
                E WO2000-EP1837/AP,PRN
L38           1 S E3,E4
                E DE99-19911056/AP,PRN
L39           1 S E3,E4
L40           5 S L38,L39,L37
                E COGNIS/PA,CS
L41         804 S E3,E4
                E BIOTEC/PA,CS
L42         213 S E3,E4
L43        1009 S (COGNIS OR BIOTEC)/PA,CS
L44           5 S L41-L43 AND L30
L45           5 S L40,L44
L46        1204 S BETA 1(1W)3 GLUCAN
L47         136 S L23 AND L46
L48         223 S L30,L47
L49           5 S L48 AND L31-L45
                SEL RN

     FILE 'REGISTRY' ENTERED AT 13:35:52 ON 12 MAR 2003
L50           8 S E1-E8
L51           3 S L50 AND L1-L17
L52           1 S L51 AND 4/NC

     FILE 'HCAPLUS' ENTERED AT 13:36:38 ON 12 MAR 2003
L53           1 S L52
L54          17 S L19,L49,L53

     FILE 'REGISTRY' ENTERED AT 13:37:58 ON 12 MAR 2003
L55           1 S 37228-69-6

     FILE 'HCAPLUS' ENTERED AT 13:38:27 ON 12 MAR 2003
L56          81 S L55
L57         294 S BETA(S)1(1W)6(S)GLUCANASE
L58           7 S L48 AND L56,L57
                SEL DN AN 3 4
L59           2 S E9-E14
L60          17 S L54,L59 AND L19,L21-L49,L53,L54,L56-L59
L61          17 S L60 AND (?CHITIN? OR ?CHITOSAN? OR ?GLUCAN?)
                SEL RN

     FILE 'REGISTRY' ENTERED AT 13:42:17 ON 12 MAR 2003
L62          33 S E15-E47
L63          15 S L62 AND L1-L17,L55
L64          13 S L63 NOT SQL/FA
L65          12 S L64 NOT ZYMOL?
L66          18 S L62 NOT L63

     FILE 'HCAPLUS' ENTERED AT 13:45:11 ON 12 MAR 2003
L67          17 S L64 AND L61
L68           7 S L30 AND COSMETIC#/SC,SX,CW
L69           5 S L30 AND COSMETIC#/BI
L70           7 S L68,L69
L71           0 S L30 AND COS/RL
                E COSMETICS/CT
L72           4 S E3-E61 AND L30
                E E3+ALL
L73       56276 S E2,E1+NT
L74       44674 S E31+NT OR E25+NT OR E26 OR E27+NT OR E28+NT OR E29+NT
                E E30+ALL
L75        6768 S E3+NT
L76       79770 S E14+NT
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                E E15+ALL
L77        50709 S E3+NT
                E E145+ALL
                E E16+ALL
L78         2359 S E3+NT
L79         9165 S E7+NT OR E8+NT
L80            9 S L30 AND L73-L79
L81           21 S L30 AND (PHARMACEUT? OR PHARMACOL?)/SC,SX,CW
L82           13 S L30 AND THU/RL
L83           42 S L67-L70,L72,L80-L82
L84           32 S L83 AND (PD<=20000303 OR PRD<=20000303 OR AD<=20000303)
L85           10 S L83 NOT L84
L86           32 S L19,L84

     FILE 'REGISTRY' ENTERED AT 13:51:22 ON 12 MAR 2003
L87            8 S L64 NOT L17

     FILE 'HCAPLUS' ENTERED AT 13:52:18 ON 12 MAR 2003

     FILE 'WPIX' ENTERED AT 13:53:05 ON 12 MAR 2003
L88         6243 S L22/BIX
                E CHITIN/DCN
                E E3+ALL
L89         1181 S E2 OR R03233/PLE
L90          691 S E4 OR R07813/PLE
L91            1 S E6 OR R14547/PLE
L92         2571 S E8 OR R03882/PLE
L93          691 S E10 OR R07813/PLE
L94         1531 S (B04-C02E3 OR C04-C02E3)/MC
L95         1392 S C08B037-08/IC,ICM,ICS,ICA,ICI
L96         7383 S L88-L95
                E GRIESBACH U/AU
L97           13 S E3
                E WACHTER R/AU
L98          113 S E3-E7
                E ANSMANN A/AU
L99          159 S E3
                E FABRY B/AU
L100         230 S E3
                E EISFELD W/AU
L101          18 S E3
                E ENGSTAD R/AU
L102          10 S E3,E4
L103          72 S L96 AND L97-L102
L104         375 S L25/BIX OR L26/BIX OR L27/BIX OR L28/BIX OR L46/BIX
L105           5 S L103 AND L104
L106         346 S C08L005-08/IC,ICM,ICS,ICA,ICI
L107        7439 S L96,L106
L108          33 S L107 AND L104
L109           5 S L97-L102 AND L108
L110          68 S L107 AND BETA(S)GLUCAN
L111          33 S L108 AND L110
L112          11 S L111 AND A61K/IC,ICM,ICS,ICA,ICI
L113          11 S L105,L109,L112
L114          31 S L110 AND A61K/IC,ICM,ICS,ICA,ICI
L115          20 S L114 NOT L113
                SEL DN AN 17
L116           1 S L115 AND E1
L117          12 S L113,L116
L118          15 S L108,L110 NOT L111-L117
L119          12 S L117 AND L88-L118

     FILE 'WPIX' ENTERED AT 14:12:09 ON 12 MAR 2003
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FILE 'WPIX' ENTERED AT 14:12:25 ON 12 MAR 2003
E WO2000-EP1837/AP,PRN

FILE 'DPCI' ENTERED AT 14:12:46 ON 12 MAR 2003
E WO2000-EP1837/AP,PRN
L120 1 S E3

FILE 'WPIX' ENTERED AT 14:14:24 ON 12 MAR 2003
L121 6 S (DE19537509 OR JP03204804 OR WO9530022 OR WO9840082 OR EP3770

FILE 'HCAPLUS' ENTERED AT 14:20:36 ON 12 MAR 2003

FILE 'WPIX' ENTERED AT 14:20:45 ON 12 MAR 2003

FILE 'KOSMET' ENTERED AT 14:23:51 ON 12 MAR 2003
L122 100 S CHITOSAN OR CHITIN
L123 0 S L122 AND GLUCAN?

FILE 'HCAPLUS' ENTERED AT 14:24:10 ON 12 MAR 2003
L124 1 S ONSOYEN ?/AU AND 1991/PY
L125 10 S ZUELLI ?/AU
SEL DN AN 5
L126 1 S E1-E3
L127 2 S L124,L126

FILE 'HCAPLUS' ENTERED AT 14:26:18 ON 12 MAR 2003